ENGINEERING LIBRARY

NOV 13 1947

NOVEMBER 8, 1947
Vol. 133 — No. 19

TELEPHONY

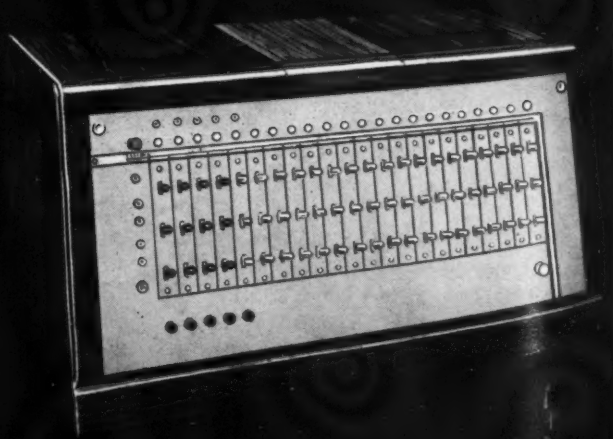
THE JOURNAL OF THE TELEPHONE INDUSTRY

Published every week on Saturday by TELEPHONY PUBLISHING CORPORATION, 608 So. Dearborn St., Chicago 5, Ill. Subscription $3.00 per year. Entered as second class matter at the Post Office at Chicago, Ill., under the act of March 3, 1879.

STROMBERG

STROMBERG-CARLSON NO. 120 P. B. X. SWITCHBOARD

Wiring and Capacity: 80 lines, 15 cords, 15 trunks. Connects with any central energy exchange, manual or dial, through jack-ended trunks. Height: 3′ 9⅝″; Width: 2′ 1⅛″; Depth: 2′ 8″.



STROMBERG-CARLSON NO. 121 CORDLESS P. B. X. SWITCHBOARD

Wiring and Capacity: 16 lines, 5 trunks, and 5 connecting circuits. Connects with any central energy exchange, either manual or dial. Length: 2′ 2¾″; Height: 1′ 2″; Depth: 1′ 2¾″.

TELEPHONES, SWITCHBOARDS AND INTERCOMMUNICATION SYSTEMS • SOUND EQUIPMENT

LLOGG PBX—TYPE "J"

1. Operates with either common battery, manual, dial or magneto main exchanges.
2. Through-battery feed on jack-ended trunks.
3. Through trunk supervision.
4. Trunk re-ring feature.
5. Through or attendant dialing.
6. Balance battery feed.
7. Automatic trunk holding.
8. Low current consumption.
9. Positive supervision.
10. Single night connections with regular cords.
11. Multiple night connections.

t left: Cord type cabinet for Kellogg PBX—Type J witchboards. Note easy visibility. Cabinet available finish of your choice. *Carried in stock, partially quipped, for shipment within a fraction of the time equired for engineering and manufacturing custom- uilt equipment.*

CORDLESS TYPE KELLOGG PBX

Cordless Type Kellogg PBX switchboards have many more uses than ordinary cordless boards. They can operate in connection with either a common battery, manual, or dial and magneto exchange, through the use of magneto line adapters—rewiring or modification of circuits not required except where using the magneto line adapter.

Low and compact in design, Kellogg cordless switchboards are of modern appearance. The black face panel of the cabinet contrasts with metal keys and colored handles—cabinets are available in oak, walnut, or special finish if preferred.

Offers 9 Advantages

1. **Operates with either common battery, manual, dial or magneto main exchanges.**
2. **Through battery feed on trunks.**
3. **Through or attendant dialing.**
4. **Balanced battery feed.**
5. **Trunk holding**
6. **Low current consumption.**
7. **Positive supervision.**
8. **Night connections.**
9. **Through trunk supervision.**

.....IMMEDIATE REVENUE INCREASES

FLASHES AND PLUGS

WARTIME DEVICE AIDS HARD OF HEARING. A device used by the Office of Strategic Services during the war to pick up enemy telephone conversations without wire tapping, has been put to peacetime use in modified form as an aid to the hard of hearing.

The so-called "mystic ear" enabled special agents to pick up conversations from the inaudible electro-magnetic vibrations emanating from the telephone of the enemy.

The device has no electrical parts of its own. Measuring two inches by one inch with a small rubber suction attachment, it may be placed on a telephone receiver or bell box, or on the radio, and the vibrations picked up are magnified by the hearing aid.

Since the "mystic ear" picks up only vibrations and not sounds, the person using it can listen to the radio or telephone without hearing any other sounds in the room.

It is said that the principle of electro-magnetic radiation some day may be utilized in a design for a "cordless" hearing aid.

• • •

GIRLS, TAKE NOTICE. Believe it or not, Glamour-Man Clark Gable once worked in the telephone business, according to Ed Sullivan's syndicated column, "Little Old New York." When a stock company folded up in Portland, Ore., he stayed there and got a job handling classified ads for a Portland newspaper. One day a pretty good ad came in, and he went out and took the job himself . . . with the Pacific Telephone & Telegraph Co.

• • •

SMART THINKING. Pharmacist William Broussard of Beaumont, Tex., uses his telephone to pick up additional business. Whenever a physician gives him a prescription to be filled and delivered to a customer, he notifies the latter that it is ready. Incidentally, he mentions many of the other items carried in the store. Just a small effort, but it's helped sales greatly, he claims.

• • •

MIGHT BE LAST AID. "Doctor," came the voice of the desperate father over the telephone, "come right away. Our little boy is ill."

"I'll come as soon as I can," replied the doctor, "but it may be an hour."

"Well, make it as quick as you can, doc," insisted the other. "My wife has a book on 'What to Do Till the Doctor Comes,' and I'm afraid she'll do it."

• • •

U. N. MAKES TELEPHONE BOOK. That the United Nations is here to stay at least temporarily is evinced by a telephone listing of "Governments—Foreign Representatives" which appears in Manhattan's new "Red Book."

The listing, hitherto "Consulates and Other Foreign Government Representatives," was changed to facilitate references to United Nations delegations and other foreign officials. Sixty-six foreign countries are shown under the new head, in caption form. Under a sub-caption "United Nations," the delegations are listed alphabetically. The representatives of each country are also listed under its individual caption.

• • •

NO RESERVATIONS. Chief of Police Rogers of Savannah, Ga., was taken somewhat aback by a long distance telephone call for the chief. . . . Chief Chewacki, an Indian warrior. Sorry, he said, no reservations here.

TELEPHONY

The Journal of the Telephone Industry

November 8, 1947

Contents

IN THE NATION'S CAPITAL 9
By Francis X. Welch

COMING CONVENTIONS 11

THE WHITE HOUSE SIGNAL TEAM 14
By Maj. George J. McNally

THE PLANT MAN'S NOTE BOOK 16
By Ray Blain

THE OPERATOR'S CORNER 23
By Mayme Workman

COURTS AND COMMISSIONS 24

H. D. FARGO, Jr., *President & Advertising Manager*
R. C. RENO, *Vice-President & Editor*
H. D. FARGO, *Vice-President & Treasurer*
A. J. STULTS, *Secretary & Western Manager*
CLAIRE LE BRINT, *Associate Editor*
ETHEL B. HARTMAN, *Associate Editor*
RAY BLAIN, *Technical Editor*
FRANCIS X. WELCH, *Washington Editor*
MAYME WORKMAN, *Traffic Editor*
VIVIAN RYDEN, *Circulation Manager*

Published by
TELEPHONY PUBLISHING CORP.

Vol. 133, No. 19. Published every week on Saturday by TELEPHONY PUBLISHING CORPORATION, 608 South Dearborn St., Chicago (5), Ill. 15 cents per copy (except special issues). Subscription $3.00 per year U. S. and Countries in U. S. Spanish Postal Zone; $4 Canada; $5 Other Countries. Entered as second class matter September 4, 1908, at the Post Office at Chicago, Ill.

Telephone Wabash 2435
608 S. Dearborn St., CHICAGO (5), Ill.
U. S. A.

IN THE NATION'S CAPITAL

BY
FRANCIS X. WELCH
WASHINGTON
EDITOR

Possibility House Sub-Committee will recommend minimum wage increase, cut in small companies' operators' wage exemption to "take curse off the Taft-Hartley Act" for Labor. . . . *Congressional Quarterly Log* reveals high price of lobbying.

THE progress of the hearings on the proposed amendments to increase the minimum hourly wage under the Fair Labor Standards Act indicates a possibility that the House Sub-committee on Labor and Education may be disposed to do two things: (1) Recommend an increase in the minimum hourly wage from 40 to 60 or 65 cents, but not as high as 75 cents as proposed in some of the pending bills on this subject; (2) cut down or otherwise alter the present exemption enjoyed by small telephone companies with respect to operators' wages at exchanges of 500 stations or less—but not cut out the exemption entirely, as proposed by the Communications Workers of America (CWA).

The timetable on the sub-committee's operations is pretty indefinite. Possibly it will make its recommendations in time for the full Committee on Labor and Education to report out a bill during the special session of Congress which opens up on the 17th of this month. But even so, it does not appear likely that final action, if any, could be completed on the bill before the end of the special session which will come with the holiday recess. The wage-hour amendments may well be left in a good position, however, to make an early start when the next regular session opens up after New Year's Day.

The attitude of the members of Congress on the sub-committee, during the hearings last week, did not seem to be too warm about retaining the present exemption of telephone operators' wages at switchboards with 500 stations or less. This was shown during the questioning of Joseph A. Beirne, president of CWA. True, in one spot Beirne's plea for 75 cents an hour minimum wage backfired when he had to admit that telephone apprentices in some situations were not worth that amount.

But there seemed to be some dissatisfaction—at least among the members of the sub-committee—over the use of the number of stations per switchboard as a basis for the exemption. So it may turn out, in the committee's report on this legislation, that the wording of the present exemption will be changed. As far as the chances for ultimate enactment of the wage-hour amendments—as a whole are concerned—they continue to improve. This is not solely this observer's opinion, but it represents his efforts to learn what other observers think about the situation.

As stated before in this department, there seems to be a feeling among the Republican leadership in Congress that the GOP must go to the polls next year with a record of having done *something* for labor, and that increasing a statutory minimum under the Fair Labor Standards Act would be the most convenient way to accomplish this. The idea would be, of course, to take a little of the curse off the passage of the Taft-Hartley Act, as seen from the viewpoint of organized labor.

• • •

Speaking of organized labor and the Taft-Hartley Act, a recent publication covering lobbying expenditures shows some interesting facts about the amount of money the unions spent in their vain attempt to defeat that piece of legislation. This publication is the *Congressional Quarterly Log*, published in Washington, D. C., by Nelson and Henrietta Poynter. It contains a copyrighted tabulation of financial reports for the last session of Congress, filed by registered lobbyists. The very top spender listed by *Congressional Quarterly Log* was the American Federation of Labor, $834,374. CIO and some of the independent unions undoubtedly spent additional sums but they were not separately listed.

Readers of this department also will be interested to know that the second highest classification of spending lobbyists was in the public utility field—affecting electric power legislation. But the big spender in this field was not, as you might hastily suppose, the business-managed electric power industry. It was the National Rural Electric Cooperative Association, (NRECA) which is listed as spending $227,000. This is the lobby organization for the REA co-ops, which are generally pictured as being a plain and modest association of farmers trying to cut their operating expenses through cooperative effort—not to mention tax exemption.

Anyhow, the REA co-op association alone spent more than the lobby organization for all of the privately owned electric power companies, which is the National Association of Electric Companies—listed as spending $190,000.

All told, *Congressional Quarterly Log* shows 911 individuals and organizations registered, but only 130 filed financial reports. The top 100 report total lobbying expenses of $3,737,372. Seventeen more reported lobbying expense of less than $1,000 each, and 13 reported no expense at all. Many of the most important pressure groups in Washington are not reported at all in the *Congressional Quarterly* roundup.

One cannot draw any general inference, from this report, as to the *effectiveness* of high price lobbying in Washington, in terms of legislative results. Some of the lobby groups which spent the most money got little or no results. The most glaring example of this, of course, was the million dollar effort (on the basis of the AFL expenditure of $834,374 it seems probable that organized labor as a whole spent over a million), to beat the Taft-Hartley Act. And a good many people who responded to those heart-rending newspaper advertisements to send checks for $1.00, $5.00, etc., to help bring the displaced persons of Europe to America got nowhere. This was shown in the listing of the Citizens' Committee for Displaced Persons, which spent $288,-

727 in a futile effort to pass a bill which would have admitted 400,000 displaced persons to the United States without regard to immigration quotas.

On the other hand, no one can say that the REA co-ops did not get plenty of results for their money. While every other department and agency in the federal government was taking cuts in their appropriations last year, REA came up (contrary to all previous predictions, including your own correspondent's) with the second largest annual loan appropriation in its entire history —$225,000,000. The NRECA could really take a bow on that one.

The real estate lobby (two groups) spent over $150,000 to get veterans housing legislation killed and they got what they wanted. The so-called "water lobby," composed of reclamation groups from the West, spent $179,000 to promote congressional appropriations for rivers and harbors and irrigation projects. This group did pretty well, too; although the Reclamation Bureau fund was cut considerably under the budget request.

• • •

Another report made public in Washington this week throws some light on the controversial tax exempt status of co-operatives — *all* co-operatives, not just the REA co-operatives. When private business organizations protest against unfair competition resulting from discrimination in favor of tax-exempt co-ops, the practice of the co-ops has generally been to becloud the issue in a number of ways. In some cases, they insist that they are not tax exempt, that all of them pay *some* taxes, and that some of them pay *all* taxes that private business would pay.

Very often in the same statement there is found the somewhat inconsistent argument that the amount of tax revenues which the Treasury would realize if tax exemption were removed from the co-operatives would be relatively insignificant and too much of a burden to put on the poor farmers.

Now comes the Treasury Department—not just some mean old businessman's organization, but Uncle Sam's Treasury itself—and says that more than half of the nation's 10,150 farm co-ops are — by law — completely tax exempt. Furthermore, the Treasury says that farm co-ops are the most important co-operative group and that about one farmer in every three is a member of a co-op. If you think that these operations are just small potatoes, look at some of these totals. During the 1944-45 marketing year, farm co-ops in the United States did *more than 5½ billion dollars worth of business.*

CUTIES **BY E. SIMMS CAMPBELL**

"Of course I hear the phone ringing—I just want to show him I'm not sitting here waiting for his call!"

(Courtesy King Features Syndicate)

As a result of our present preferential tax laws, the Treasury study showed, ordinary business concerns are paying $1.00 in taxes for every $29.50 of gross sales at a time when co-operatives are paying $1.00 in taxes for every $250 to $500 of gross sales. These facts, the Treasury said, have led to charges that farm co-ops "enjoy unjustifiable tax advantages over their competitors."

It listed four suggested changes in the tax treatment of farm co-ops: Repeal the exemption entirely; tax all patronage dividends; tax patronage dividends paid non-cash form, exempting those paid in cash; a gross receipts or invested capital tax. But, the Treasury added, obstacles face each of these ideas that would limit their usefulness.

• • •

Passage of the wage-hour amendments to the Fair Labor Standards Act undoubtedly would hasten mechanization of jobs in some industries. This probably would be true in the telephone industry, where the increased minimum wages for operators at very small exchanges might well make it more economical, in some situations, to switch to automatic equipment. Recognizing this possible outcome of the enactment of higher minimum wage standards, various labor organizations have recently released statements and publicity items dealing with the "menace" of technological unemployment.

As usual, James C. Petrillo, head of the musicians' union (AFL), has gone to the extreme in dealing with the phonograph industry. The phonograph industry today is virtually a communications industry since it ties in, commercially, with radio broadcasting. Petrillo has forbidden his union musicians to make any more records after the first of the year, on grounds that the phonograph record is a mechanical device for curtailing the employment opportunities of living musicians. Some of the arguments used by Petrillo might well be of interest to folks in the telephone industry, in anticipation of the revival of arguments that are likely to be forthcoming in the future about "technological unemployment" through the use of automatic equipment.

Petrillo asked the question: "Would an iceman make an electric refrigerator, knowing it would put him out of business?" An iceman probably would

not. But the public, at large, can be thankful that no iceman ever had the absolute authority to forbid the manufacture of electric refrigerators.

The idea that technological progress results in unemployment is as fallacious as it is old. It is true that in immediate situations there may be some temporary dislocation and unemployment, following the introduction of automatic devices. But over the long run, history has always shown that these same devices make for even more employment opportunities and generally not only more jobs but better pay.

To realize how far back this delusion about technological unemployment goes, consider this: In 1760 there were nearly 8,000 people employed in England spinning and weaving cotton by hand. In that year Arkwright's spinning machine was invented and introduced. The hand weavers rioted, burned the new equipment and stoned some employers who tried to install it. In less than 30 years, the number of persons employed at the mechanical looms in England rose to 320,000. Around 1815 another textile device was introduced in England—a machine to knit stockings. It, also, caused bloody rioting by English workers who previously had knitted stockings by hand. By 1900, the number of persons employed in knitting stockings had multiplied 100 times.

We have had somewhat similar experiences in the United States. If the makers of oil lamps and tallow candles could have prevented the introduction of Edison's electric light, they would have done so. If the people who manufactured wagons, harnesses and buggy whips, etc., could have blocked the introduction of the automobile, they would have done so. But today we not only have infinitely better illumination and transportation at a cheaper price, we also have hundreds of thousands more people employed in the electric light and power industry and in the automotive industries than ever were employed in their primitive antecedent industries.

It is no accident that progressive countries like our own with the most technological progress are the ones with the best paying jobs and the highest standards of living for their workers. A nation without machines is a nation of unemployment or dreadfully exploited human labor. Chinese coolies could readily testify to this. Of course, the chances are good that Mr. Petrillo is just trying to run a bluff and he is expecting that the record makers will give him a nice settlement before the deadline. The record makers have on their side amassed a huge inventory of back recordings. And if you have noticed the taste in popular music recently (which is known to be controlled largely by Broadway and Hollywood productions) the trend seems to be towards revival of classical and popular tunes copyrighted many years ago.

If a long-drawn-out battle results between Petrillo and the record makers, probably the juke box industry will be the principal casualty and most of the rest of us will be able to bear up. But the age-old delusion about technological unemployment is not going to be destroyed. It is too stubborn and persistent. Chances are good that we will be hearing a lot more talk about it in the telephone business within the next few years, especially if wage levels continue to shoot upward.

COMING CONVENTIONS

Georgia Telephone Association, Henry Grady Hotel, Atlanta, November 10 and 11.

Alabama Independent Telephone Association, Jefferson-Davis Hotel, Montgomery, November 13 and 14.

Missouri Telephone Association, Governor Hotel, Jefferson City, November 17 and 18.

North Carolina Independent Telephone Association, Pine Needles Hotel, Southern Pines, November 20 and 21.

Oklahoma Telephone Association, Huckins Hotel, Oklahoma City, December 4 and 5.

Hemispheric Shortages

The United States is only one of many countries where the demand for telephones far exceeds immediately available equipment and facilities.

In Mexico and Central and South America, where on Jan. 1, 1947, there were 1,730,000 telephones in service, the pending demand totals approximately 450,000. This is, proportionately, a larger "backlog" of orders than in the United States, where telephones operated by Bell System and Independent companies now number more than 32 million and unfilled orders exceed 2,500,000.

In 1946 about twice as many telephones were added in this country as the total in service in all Mexico and Central and South America.

»» *More than 115,000,000 miles of telephone wire are in use in the United States, or more than enough to lasso the sun. In the beginning a telephone line was just that. Today it has a variety of other uses: Carrying pictures or typewritten words or connecting radio stations with points where broadcasts originate.*

Talks from the Heights

On top of Mount McKinley, Alaska, highest mountain on the North American continent, Mrs. Bradford Washburn, first woman to scale the 20,000-foot peak, talked by radio-telephone to friends in Seattle.

LINK THE WORLD'S

THE STROWGER METER

- *Every meter is operated on test* 10,000 *times at the rate of* 5 *operations per second before leaving factory*
- *Meters selected from stock have performed* 300,000 *operations on "life test."*
- *The reverse drive principle is employed making possible more uniform adjustment.*
- *Ratchet wheels are made of tin alloy.*
- *Resistance of the coil is within* ± 5% *of the required value.*
- *Insulation resistance is* 100 *megohms at* 500 *volts D.C.*
- *Any type of winding to suit any particular purpose can be provided.*
- *Meters can be supplied with contacts for controlling external circuits.*
- *Meters can be used for recording subscriber's calls, traffic flow through exchange equipment, etc.*

AUTOMATIC TELEPHONE & ELECTRIC CO. LTD.

Export Department

NORFOLK HOUSE, NORFOLK STREET, LONDON, W.C.2, ENGLAND

RESOURCES . . .

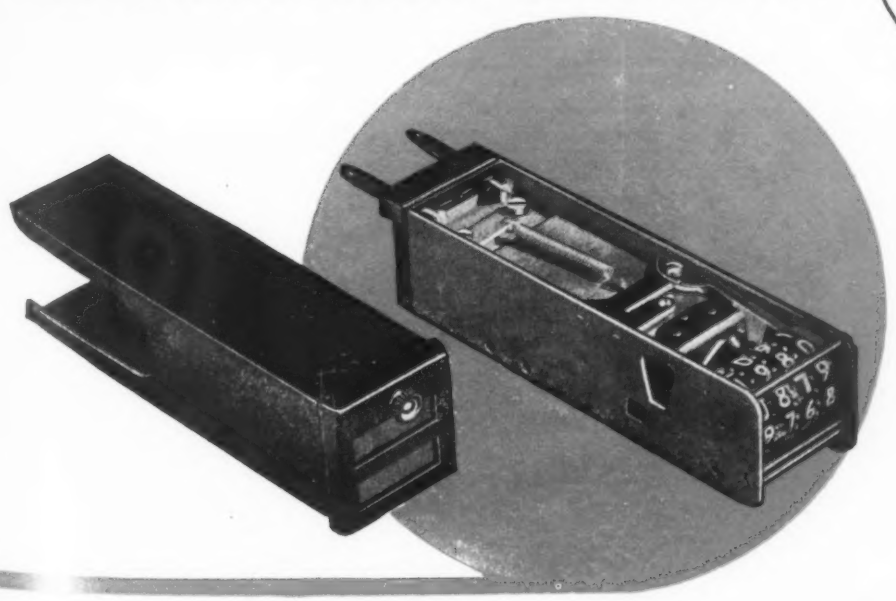
in the centres of commerce

There are many towns whose vast activities are those of the bazaar; they are the "market-places" of the world. As a result of transactions concluded there a buyer located five hundred miles to the north may obtain articles manufactured three hundred miles to the south. The season's crop of a whole agricultural area or the steel output of a city may be bought or sold overnight. Reliable means of communication must be available at all times. Strowger Automatic Telephone Service fulfils this need. In addition to its efficiency in operation it is simple to maintain, capable of extension to cater for growing populations and economical to both operating organisations and users.

with

STROWGER

TELECOMMUNICATIONS



STROWGER WORKS

LIVERPOOL 7, ENGLAND

The White House Signal Team

By MAJ. GEORGE J. McNALLY*

THE signal officer on wartime duty in Accra, on Africa's Gold Coast, was mystified by the sudden arrival of a sergeant on secret orders who firmly requested top-priority service. Operations officers in such remote way stations as Georgetown, British Guiana, or heat-ridden Khartoum in the Anglo-Egyptian Sudan, had similar doubts about A-1 priority travel orders carried by close-mouthed officers and enlisted men who would not state their missions or destinations. Prime Minister Churchill, too, had reason to wonder at the fleetness of these men who unobtrusively appeared at Quebec, Teheran, and Yalta—wherever grand strategy was planned and historic policies formulated during the war years.

To these men—members of the White House Signal Detachment — was entrusted the mission of speeding the President's top-secret communications, from the highest level conference tables to installations in the field. Today, wherever the President travels, the White House Signal Detachment continues its task of weaving deftly an intricate communications net which enables the Commander in Chief to keep himself constantly informed and in touch with the nation.

Although officially activated in March, 1942 by orders labeled "immediate action" and "secret," the White House Signal Detachment had its informal inception weeks before, when Lieut. Col William A. Beasley of Fort Monmouth, N. J., received orders to report to the White House. In a session with Frank J. Wilson, then Chief of the United States Secret Service, and Michael F. Reilly, in charge of the White House Detail, plans were formulated to provide the President with complete communications coverage. Brig. Gen. Frank E. Stoner, Chief of Communications, told Colonel Beasley, "You're working for the President. He is to have everything he needs, and it must be the best." Supplied with an A-1-A priority and funds for procurement and purchase of non-issue equipment, Colonel Beasley undertook the job of fighting time with speed.

News from Europe and the Orient was anything but reassuring. An attack was expected. How or where was not clear, so all contingencies were anticipated. Elaborate safety precautions were established for the President's protection. A bombproof shelter was begun at the White House. A guard of Fifth Cavalry troops from Fort Myer was thrown around the White House grounds; cameras were taboo; and special passes were required for admittance. Helmets and gas masks were issued all around, and every one on duty took gas defense training.

Beginning with a nucleus of men detached from the Washington Provisional Brigade, Colonel Beasley in December, 1941 set up a signal shop, and began organizing a radio network to supplement and possibly replace the telephone system, in case enemy bombs crashed down. The main radio control was located in the White House itself, with five net stations of 50 watts each at strategic centers in and near Washington. The main transmitter and antenna were remotely controlled. In addition, an emergency 50-watt set, powered by a Diesel unit which automatically cut in when commercial power failed, was set up on the White House grounds. A low frequency transmitter, also in the White House, served as the master control for a handitalkie (SCR 536A) net used by the military police and secret service men. A fleet of secret service cars and a few MP vehicles were equipped with mobile 30 and 50-watt two-way radios, and additional receiver pickup and transmitter control points were set up.

A private branch telephone exchange board, separate from the White House switchboard, was also installed. Tie lines ran to key centers in Washington, with private lines to persons the President might wish to summon in emergencies. Direct lines ran also to all sources of air raid warnings.

With his own plans laid and the Joint and Combined Chiefs of Staff functioning, President Roosevelt plunged into international arrangements. Prime Minister Winston Churchill came over for a conference. Princess Martha of Norway arrived and took up residence outside the district. The signal team installed a small radio station and a private branch telephone exchange at Lee, Mass., where Queen Wilhelmina elected to stay for the summer of 1942.

President Roosevelt soon resumed his trips to Hyde Park, and the Signal Detachment took action to provide additional communications. A 50-watt frequency modulation station was modified and installed on the secret

Soldiers of the Signal Detachment operate the White House security switchboard.

*MAJ. GEORGE J. McNALLY, Sig C., is Chief, White House Signal Detachment. This article, which is reprinted from the Army Information Digest, is condensed from parts of a forthcoming book by Major McNally.

service car attached to the presidential train. Army vehicles, radio equipped, were spotted at strategically plotted points along the route between Washington and Poughkeepsie, so that the train was in constant touch with the White House all the way. Another FM radio link was installed in the old stable on the President's estate at Hyde Park. By means of a direct telephone line to Washington and frequency modulation radio, the White House was kept informed of the President's whereabouts at all times.

For security reasons, men of the Signal Detachment dressed in civilian clothes. Arrivals and departures of the presidential party were made at late and early hours, to prevent crowds. However, appearance of familiar cars and personnel on the roads and in the vicinity of Poughkeepsie was the tipoff. Probably not more than a few thousand persons knew of the movements. The press stuck faithfully to their agreement and merely reported that the President had not held the usual press conference or that he could not be reached for comment.

The President later sought respite in a mountain retreat, closer to the District of Columbia. The camp, formerly a summer place for children, had been turned over to the military. To the marine guards, the navy maintenance personnel, the secret service and the signal corps men, the area seemed to be a proving ground for bad weather—an area where it rained continuously, "one day from the sky and two days off the trees." The mountain itself was like solid rock, and when the time came to lay telephone cables, blasting was necessary. Crews from army headquarters in Baltimore sweated over cables and equipment that alternately got water soaked or burned out when storms hit the mountain. The elements had a high regard for President Roosevelt, though, and he enjoyed many good days at the mountain lodge. The haven was named by the President at a press conference. When asked where he had been, he smiled and said "Shangri-La."

In spite of long-range planning and the complete support of the Signal Corps, a slip-up almost did occur. One afternoon at Shangri-La, a call came from the President's lodge, "Mr. Hopkins wants to listen to Hitler's speech!" Soldiers were dispatched to locate a short wave radio in camp. They returned without success. Among the great variety of radio equipment on hand, nothing was immediately available for short wave broadcast reception. Finally, in one cabin a table-style broadcast receiver was found. A quick check revealed a short wave

(Please turn to page 31)

PRESIDENT TRUMAN receives a teletype message aboard the presidential radio car.

The presidential train at Georgian Bay, Ontario, prior to the Quebec conference.

One of the mobile power units set up for operation in the field.

THE PLANT MAN'S NOTE BOOK

BY
RAY BLAIN
TECHNICAL
EDITOR

WE HEAR a lot of late regarding the necessity of preserving and protecting the privacy and intimacy of telephone conversations. Many contend that we now enjoy all the privacy of a face-to-face conversation with our present day telephone systems and that this privacy must be maintained at all costs.

All this makes very good reading, but if we consider the actual facts in the case, it is doubtful that we, of the present generation, actually have any privacy in voice communication. We read almost daily about law enforcement agencies and their wire tapping activities. While these activities are considered justified in the detection of crime, there is no reason why the same tools cannot be used by crooks against honest people. Or is it true, as some contend, that wire tapping cannot hurt an honest man?

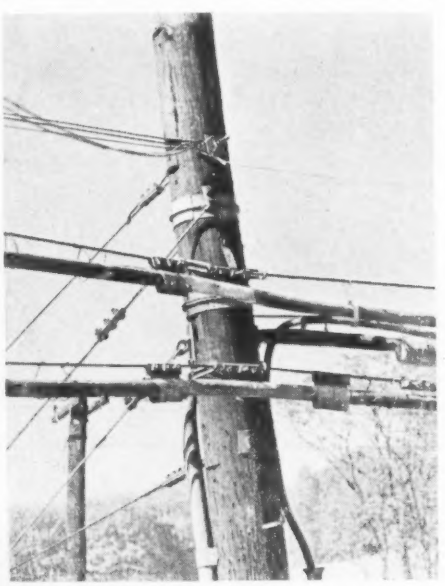
A most interesting article with many photographs was published in *Life* on Sept. 22, entitled, " 'I Spy' Molton," in which it was clearly explained how wire tapping and hidden microphones are used to pick up conversations which are recorded and used by Mr. Molton's clients as grounds for divorce or in court actions to scale down demands for cash, alimony or custody of the children. This story tells how microphones may be hidden in a tree, under a bed, or in a fireplace to reveal private conversations.

This, of course, is all in the day's work of a private detective, but it also suggests numerous other possibilities and uses of the same devices. Suppose you have an appointment with Mr. Bigdome, in his private office. The matter to be discussed is most important and secret and even the private secretary has been excused. An argument ensues and, in the heat of anger and your faith in the supposed secrecy of a face-to-face conversation, you may make statements which might not react to your advantage if repeated later. Despite all this, Mr. Bigdome, if he so desires, may step on a hidden switch under the rug, or by merely opening a desk drawer and taking out a cigar, start a voice recorder and by the use of a concealed microphone make an accurate recording of every word you utter.

When we consider the large percentage of party lines, extension telephones and private switchboards which make up our telephone systems today, we must also question the assured privacy of the average telephone conversation. The writer has heard numerous voice recordings made of party line telephone conversations. If an individual line telephone, without extensions, is connected to another of the same type and the circuit is not tapped, then we might reasonably assume that the conversation can be considered private.

During the late war, however, the armed services did not trust secret information to ordinary telephone communication facilities.

The writer has been queried on numerous occasions of late as to the possibility of designing a test set which can be used to determine whether or not a telephone line is free of wire tapping. When an inductive pick-up is used, it would be extremely difficult, if not impossible, to design a test set for this purpose which would prove of any value whatsoever in the detection of wire tapping.



The above photograph shows the proper and extensive use of grade clamps on an important aerial toll cable. Slight movement of the cable might cause serious trouble if the use of grade clamps were neglected.

Many executives have a stenographer listen in on a special monitoring set leased from the telephone company and make short-hand notes of all important telephone conversations. This, it appears, comes under the heading of legalized wire tapping.

In view of these facts, we actually have very little, if any, privacy in voice communication even when it's a face-to-face conversation. In the humble opinion of the writer, however, honest people have little, if anything, to fear from this fact. After all, a man should not say anything of which he is ashamed or later deny his spoken word any quicker than if the statement were made in writing.

• • •

We are informed by a manufacturer that he has recently traced four cases of equipment troubles to the careless use of soldering paste by installers. These troubles were all carefully examined to determine the cause and in each case it was found to be due to chlorine in the solder paste.

Practically all soldering paste mixtures contain chlorine to some degree. In the presence of only a small amount of moisture, chlorine, if placed between current carrying terminals, soon produces a leak. The passage of current through this leak results in carbonization, which quickly develops permanent shorts or grounds. It is always best to rely on the old standby rosin flux when soldering telephone connections, as this is non-corrosive.

If soldering paste flux must be used, make certain that all trace of it is thoroughly washed from all surfaces of the joint with alcohol after soldering.

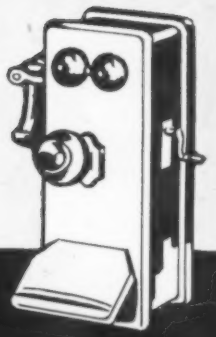
Good telephone equipment frequently is seriously damaged by the use of soldering paste bought for a few cents in some five and ten cent store.

• • •

A new type of building insulation of paper now is available, which is un-

(Please turn to page 22)

are happy!

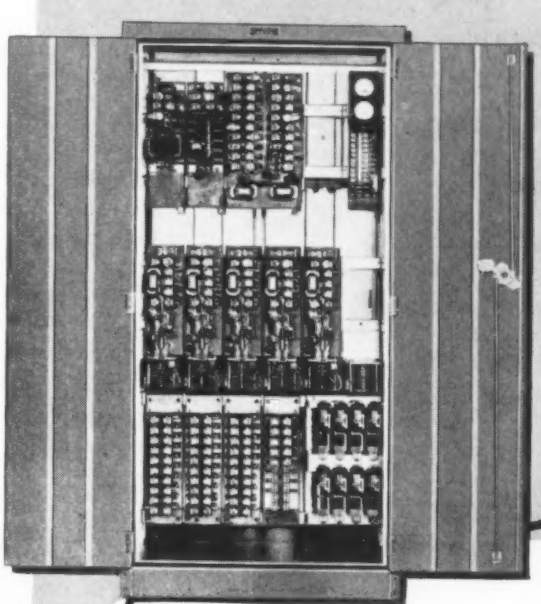


Silver City has...

an Automatic Electric

R-C-X

(Remote Controlled Exchange)



The Automatic Electric R-C-X switchboard is controlled by "full time" operators at a nearby attended exchange. Uses existing magneto telephones and lines—grounded or metallic—and permits maintaining the present number of subscribers on each line. Subscribers continue to "ring in" just as before. But instead of ringing a local operator, the subscriber's call is transferred by the R-C-X equipment over a control trunk to an operator in the "control" exchange. The control operator secures the desired number and dials it back over the same control trunk to the R-C-X, where the connection is automatically completed. The control trunk is then cleared for another call.

Ask for full particulars on R-C-X equipment for your specific needs.

the surface as two towns can
ou they differ in many ways:
pay for "full automatic" serv-
ic telephones. "Switcher line"
entral-battery operation, and
lace magneto telephones.
s prefer to keep their present
e for an operating profit—and
y for modern central-battery
ke this exchange pay its way.
oose different systems to serve
nt best adapted to the sub-
ll automatic" or R-C-X, Auto-
ubscribers happy, and *proud*

ELECTRIC

p-by-Step "Director" for Register-
witching Automatic Dial Systems
Electrical Engineers, Designers and Consultants
ossessions

3 W. Van Buren St., Chicago 7, U.S.A.
MATIC ELECTRIC CORPORATION

folded like an accordion to form aluminum coated triangular air cells. It weighs only one ounce per square foot, but it is claimed to be equal to 6-8/8 ins. of rockwool in conserving winter heat or repelling the heat of summer.

• • •

Structural framing, roof-decking, and sidewall panels of a new type precast, reinforced concrete now are available in a variety of structural shapes for building construction. The accurately engineered members are shipped to the job in the form of columns, girders, joists, beams, floor plank and wall panels. The units integrate rigidly with each other by means of specially engineered connections.

The principal feature claimed for this system of precast structural unit is the fact that it eliminates costly forming work and the difficult pouring of structural concrete on the job.

In our opinion, a similar arrangement could be used to advantage in the construction of manholes for a telephone conduit system.

PLANT MAN'S QUIZ

Q. What rules should be observed where communication lines pass over railroad tracks?

A. The poles supporting the crossing and adjacent span should be located in a straight line, if possible. Where the poles supporting the crossing span and the adjacent spans are not in a straight line, guying should be placed to take care of the unbalanced load.

The crossing span, wherever practicable, should not exceed 100 ft. in the heavy loaded district areas, 125 ft. in medium and 150 ft. in light loading areas.

• • •

Q. Will you please describe a method whereby guy guards can be constructed locally?

A. A locally constructed guy guard is usually only a makeshift and generally costs more than the patented type. It is suggested you procure a type suited to your needs from your telephone supply house.

• • •

Q. When a power driven air compressor is used for pressure testing of lead covered cable, what size is considered satisfactory?

A. One type which has proved successful for this purpose has a capacity of five CFM at 15 pounds and is equipped with a dry air attachment. This compressor is operated by one-eighth horsepower, direct connected motor at 1,725 rpm.

• • •

Q. What is the greatest distance over which television signals can be picked up on a home receiving set?

A. This will depend to a considerable extent upon local conditions. However, it is generally up to 40 miles—on an average. Signals have, in some cases, been picked up at much greater distances.

• • •

Q. In planning a new cable distribution system for an exchange plant, what consideration should be given to branch cables?

A. The pair counts of branch or subsidiary cables are based on the counts of the terminals to be spliced thereto and should multiple accordingly. The counts of terminals and the size of the subsidiary cable involved should be coordinated to permit the use of the smallest sized cable practicable and also to terminate all of the pairs of the cable, if practicable.

Pairs which are not terminated should be spliced to the main cable in the same manner as used pairs and should be left dead in the splice farthest from the exchange. All pairs of cable should be included in the count indicated, regardless of whether or not all pairs are terminated.

Branch cables ordinarily should be reduced in size along the run to meet the actual requirements. It may, however, prove more economical and satisfactory in some cases to continue the larger cable to the end of the run.

• • •

Q. When is a cross-connecting terminal considered necessary in a cable distribution system?

A. This type of terminal should be used at any location where it is necessary or desirable to separate the pairs of adjacent cable, such as may be the case at the junction of submarine and land cables. Cross-connecting terminals should be equipped with fuse chambers and/or binding post chambers as may be required to properly meet the conditions involved.

Cross-connecting terminals may also be used in special cases to meet special distribution problems and to better utilize main cables.

• • •

Q. Will you please outline a plan to follow in making an inspection of a telephone plant to determine its general over-all condition?

A. The following plan is suggested which has been extensively used, with certain modifications to meet special conditions, over a period of years:

(1) Determine the adequacy, condition and serviceability of the plant facilities, both inside and outside, by an actual examination and test of equipment, apparatus and circuits of the system being inspected.
(2) Record complete technical data on each component of the plant.
(3) Check and verify all technical and engineering records, maps, drawings, etc., of the system.
(4) Investigate and make a report of all conditions and practices adversely affecting the proper operation and maintenance of the system and note any failure to comply with all prescribed rules and practices.
(5) Compile data upon which to base recommendations covering such improvement, extension, rearrangement, or reduction of the system considered necessary in the best interest of the service.

The inspection should be made and reported in sufficient detail to determine the condition and serviceability of the system and to detect defects and conditions which are or may impair the efficiency of the system or which are indicative of improper practices with respect to installation, maintenance or operation of any part of the system.

• • •

Q. Is it possible to prevent condensation inside a switchboard during wet seasons of the year by the use of heaters?

A. This is a simple and completely satisfactory method of preventing condensation. To accomplish this effectively the room should be maintained at a slightly higher temperature than the outside air and the interior of the switchboard at a temperature slightly higher than that of the room. Electric strip heaters are suitable in most cases for use in switchboards. One type of strip heater can be mounted in a space 24 ins. by 2 ins. and consumes 125 watts.

• • •

Q. What method do you recommend for use in closing the seam in a split sleeve?

A. The edges of the sleeve should first be well beveled with a shave hook. Then coat with stearine and close with a properly heated iron using 50-50 solder.

THE OPERATOR'S CORNER

BY
MAYME WORKMAN
TRAFFIC
EDITOR

"THE OPERATORS' CORNER" was transported to South Dakota recently when it was presented as a part of the annual convention program of the South Dakota Telephone Association convention in Sioux Falls, S. D.

Meeting telephone folk from South Dakota was a pleasure indeed and the operators, like operators the world over, had problems to bring to "The Operators' Corner."

One of the highlights of the traffic program was the presentation of the talking picture, "Your Tell-Tale Voice." From the picture, operators learned that their voices tell tales; their tones make a definite impression on the customer—good or false. That's why an operator must "smile with her voice."

They were informed, "Every time you speak into your transmitter, if you are careful of what you do and say and how you say it, 'your tell-tale voice' will picture you as 'the kind of girl I like to talk to!'"

The picture revealed, "With every call, customers form an opinion of the operator, the office, and the entire telephone company. Since customers cannot see you, they must form this picture entirely from what you do and say and how you say it. If you are natural and courteous—and your voice reflects your sincere desire to be helpful—you will make a good impression and gain added pleasure from your work."

Seeing in the movie incidents that frequently happen at the switchboard while operators are at work resulted in chuckles among those viewing the film.

An interesting part of the writer's trip to Sioux Falls was her visit to the central office of the Northwestern Bell Telephone Co. The operating room, like many throughout the nation, was suffering from "growing pains," but calls were being answered promptly and there was a general air of efficiency. A modern cafeteria was under construction, just about completed.

In leaving the friendly atmosphere of Sioux Falls, after meeting many fine men and women in the telephone industry, both Bell and Independent, then, as on many other occasions the writer was impressed with the fact that telephone folk the world over are always the same, friendly and courteous—a group we are proud to be affiliated with. From the East Coast to the West Coast, North and South, in the central states, no matter where you go, you are always sure of a hearty welcome, when you visit your telephone neighbors.

It has often been stated, "You don't get rich in the telephone industry, but you have a lot of fun." And so we do.

Questions from Operators

(1) What is a temporary suffix?

(2) What report is passed to the distant operator if the called line is out of order?

(3) How is an emergency call indicated on the toll ticket?

(4) If a local operator prefixes "hotel" to a calling number, how should the call be acknowledged?

(5) Is it necessary to make a special entry on your ticket on calls received from hotel guests?

Answers to these traffic questions appear on page 33.

"Anybody here call the Cherokee Exchange?"

Tidewater Company Appoints W. G. Robertson Vice President

Rodney M. Coggin, president of the Tidewater Telephone Co. of Warsaw, Va., has announced the appointment of Walter G. Robertson to the position of vice president and general manager of the company, effective Nov. 1.

Mr. Robertson is now general manager of the Lexington and Natural Bridge (Va.) Telephone companies and, prior to Army service, was with the Clifton Forge-Waynesboro Telephone Co., Waynesboro, and the Raphine (Va.) Telephone Co.

Mr. Robertson will have charge of the operation and maintenance of the company's properties and, in addition, will supervise the construction program now in progress. His office will be in the company's headquarters building in Warsaw.

Mr. Robertson is a graduate of Virginia Military Institute and held positions with the General Electric Co. and the Electric Bond & Share Co. in New York, with the Pacific Electric Mfg. Co. in Atlanta, and was with the engineering department of the Virginia State Corporation Commission before going to the Clifton Forge-Waynesboro Telephone Co.

V V

Lauds Neil Shreck

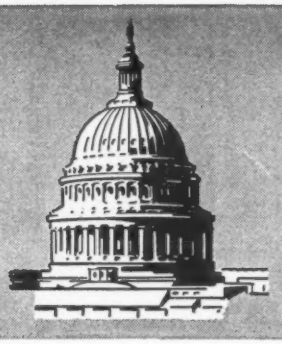
Local businessmen welcomed the cutover of the Bertrand (Neb.) Telephone Co., of which Neil Shreck is manager, with a full page newspaper advertisement. In it they congratulated Mr. Shreck on his enterprise in bringing to the town modern dial service, and lauded the company as a progressive corporation "headed by a man who always has his eye open for something new or better in the way of service to its customers."

V V

Gretz Elected

HARRY C. GRETZ, New York City, of the American Telephone & Telegraph Co., was named a director of the Controllers Institute of America at that group's 16th annual meeting, held Oct. 19 to 22 in the Drake Hotel, Chicago.

COURTS and COMMISSIONS



Illinois Bell Rate Ruling Postponed to Dec. 4

Deadline for a ruling on the Illinois Bell Telephone Co. request for a $20,000,000 annual increase in rates was extended Oct. 31 to Dec. 4, during which time additional information would be obtained by the commission. (TELEPHONY, Oct. 18, p. 23.)

In the absence of a ruling, the higher rates would have gone into effect Nov. 3.

Illinois Bell subscribers already are paying $17,000,000 of the requested amount under a temporary order granted by the commission last July. The company has petitioned for a second rate hike amounting to $9,500,000 a year to cover wage increases given employes last spring.

V V

Contends Family-Operated Independents Need Fair Rates

The right of small Independents under family operation to a fair interest and depreciation rates on their investments was asked by the Spencer (Okla.) Telephone Co. at a hearing for increased rates heard Oct. 29 before the Oklahoma Corporation Commission.

Because an owner employs members of his family is no reason why he should not be allowed to charge as operating expenses fair salaries or wages for the time spent by them in rendering good service, the attorney for D. R. Majors, owner and operator of the Spencer company contended.

There was no opposition to the proposed rate increases, declared to be necessary to reduce estimated losses of more than $2,300 a year.

Commission Auditor L. E. Pettigrew presented fair cash value figures for the plant which substantially agreed with a valuation made by H. W. Hubenthal, secretary of the Oklahoma Utilities Association. Mr. Pettigrew, however, did not include $640 interest earnings on the investment in his report of allowances for operating expenses, claiming that it should have appeared on the books as a charge against capital account, but did not appear in the company books at all. He figured that the owner earned a gross annual net of $420.08 based on a net book valuation for his plant of $10,126.92.

Present and proposed rates for the exchange follow:

Class of Service	*Present monthly rates*	*Proposed monthly rates*
Business, one-party	$2.00	$3.50
Residence, one-party	1.25	2.25
Residence, two-party	(*)	2.00
Rural, multi-party	1.25	2.00

(*) No present rate classification.

V V

Seek Supreme Court Test of Jersey's Anti-Strike Law

A United States Supreme Court test of the constitutionality of New Jersey's public utility anti-strike law is being sought by the Communication Workers of America, it was announced Oct. 25 by Israel B. Greene, counsel for the union's New Jersey Traffic Division. (TELEPHONY, Sept. 13, p. 36.)

Mr. Greene revealed he had filed an appeal from the refusal in July of a federal statutory court to review the legality of the law. New Jersey Attorney General Van Riper took the case into Chancery Court, which has not decided the issue.

The law involved was enacted last spring as emergency legislation when the telephone workers went on strike.

V V

New York PUC Investigates Lag in Company Improvements

Testimony adduced at the New York Public Service Commission hearing in Walton Oct. 17 on the service being rendered by the Delaware Telephone Co. was to the effect that Downsville will get a new telephone system in the next few years but Walton and Roscoe will wait longer if present plans of the company are not speeded up.

New switchboards have been ordered for all three exchanges by the company, but no order for cable has been placed except for Downsville. At the present time telephone cable is being delivered 18 to 22 months after the order is given.

It was also developed at the hearing that the Delaware Telephone Co. has made no plans for financing the contemplated improvements, cost of which is estimated at about $200,000.

Mrs. Fred Haverly, president of the company, testified that since the war plans have been prepared for modernizing the equipment of the company, and that $37,000 had been spent in improvements in 1947.

She related that a new dial exchange to cost $65,000 had been ordered for Walton on Sept. 25, 1946; a new $19,000 dial system for Roscoe on June 24, 1946, and one the same date, a $12,000 dial board, for Downsville.

V V

AFL Challenges Nebraska's Anti-Closed Shop Amendment

Submission was taken Nov. 3 by the Nebraska Supreme Court of the lawsuit brought by the American Federation of Labor asking that the anti-closed shop amendment to the state constitution, adopted by popular vote last year, be declared a violation of privileges, rights and immunities contained in the federal constitution. (TELEPHONY, Sept. 20, p. 26.) Labor attorneys argue that the amendment denies to unions due process of law, equal legal protection, impairs contractual obligations now in effect with numerous employers in the state, and in operation is destructive because it denies to unions the collective bargaining process.

They further contend that state police power, which may be invoked when necessary for the protection of the public welfare regardless of constitutional guarantees, can be utilized only if there is a real and not a speculative necessity, and that there does not exist in Nebraska any basis or justification since whatever abuses occur can be remedied by regulation rather than complete prohibition.

Attorneys for the state and the Nebraska Small Businessmen's Association, which initiated the amendment, maintain that the amendment was enacted because the people of the state concluded that the time had arrived to place restrictions upon organized labor and that they believed the existing evil was the closed shop. They said it

See for Yourself the Advantages of Drop Wire Jacketed with

DURABLE, WEATHER-RESISTANT NEOPRENE

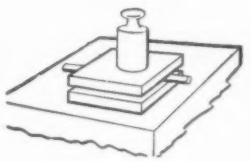
WE SUGGEST you make these tests yourself with samples of commercial neoprene-jacketed drop wire. You'll see that the neoprene jackets can really take it.

We supply crude neoprene to wire manufacturers who compound it into jackets for telephone drop wire, portable cords, aerial cable, riser cable, railroad cable, and many other types of wire and cable products. In every case the neoprene jacket gives the wire resistance to abrasion, cutting, sunlight, ozone, weather, oil and grease, and aging and oxidation. You'll find neoprene jackets on the best wire and cable. Always specify neoprene jackets when you buy.

WRITE FOR your free subscription to *The Neoprene Notebook.* Keeps you up to date on new uses for neoprene in plant equipment. Back file available on request.

MAKE THESE TESTS YOURSELF

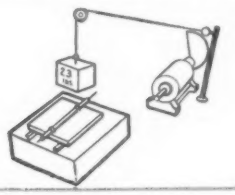
Pressure increased to point of failure



1. COMPRESSION TEST

See how the neoprene-jacketed wire stands up when crushing pressure is applied.

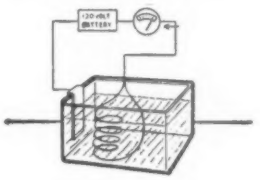
25 blows per minute, 6½-inch drop



2. POUNDING TEST

See how long it takes to crush a neoprene-jacketed wire when weight is dropped on wire repeatedly. Shows the ruggedness of neoprene for tough installations.

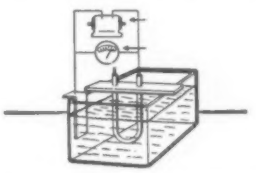
120-volt battery and galvanometer



3. INSULATION TEST

See how little leakage there is when neoprene-jacketed wire is immersed in water. Shows the better electrical properties of wet drop wire when neoprene jackets are used.

High-voltage generator and voltmeter



4. BREAKDOWN TEST

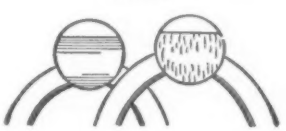
See how much voltage you can apply to neoprene-jacketed wire immersed in water before failure.

Du Pont vertical tube flame test

5. FLAME TEST

Prove to yourself that neoprene does not propagate flame in this Underwriters test. Shows why neoprene will not carry a flame into a building.

Exposed under strain to sunlight, weather



6. WEATHER TEST

See how neoprene stands up under sunlight, temperature changes or smoke and chemical fumes. Long-term tests show neoprene jacket is in good condition after ten years of service.

RUBBER CHEMICALS DIVISION, L-11
E. I. du Pont de Nemours & Co. (Inc.)
Wilmington 98, Delaware

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

DU PONT
REG. U. S. PAT. OFF.

FOR BETTER WIRE AND CABLE, SPECIFY

DU PONT NEOPRENE

THE *VERSATILE* SYNTHETIC RUBBER

was not abritrary or capricious action as shown by the fact that 14 other states have taken similar steps to halt the exercise of coercive power over individual workers; that instead of denying rights guaranteed by the federal constitution it guarantees them to all persons regardless of their economic status, and the fact that labor unions are affected with a public interest is attested by the numerous state and federal laws that have been enacted, including those favoring unionism.

As the American Federation of Labor is using the Nebraska amendment as a validity test of similar laws in other states, the case will go to the federal Supreme Court if the AFL loses in Nebraska.

V V

Iowa Company Seeks Increases For Six Minnesota Exchanges

The Central Iowa Telephone Co. of Cedar Rapids, Iowa, filed an application Oct. 31 with the Minnesota Railroad & Warehouse Commission requesting authority to change its rates at its Adams, Alden, Kiester, LeRoy, Lyle, and Sanborn, Minn. exchanges. The hearing will be held Dec. 5.

The present (a) and proposed (b) gross monthly rates are as follows, except the present and proposed rates for business and residence extension stations which are net:

B-1—Individual line, business
B-2—Two party line, business
R-1—Individual line, residence
R-2—Two party line, residence
R-4—Four party line, residence
RMB—Rural metallic, business
RGR—Rural grounded, residence
RMR—Rural metallic, residence
B-X—Extension station, business
R-X—Extension station, residence
SS—Service switching station

	B-1		B-2	
	(a)	(b)	(a)	(b)
Adams	$2.50	$4.00	$ ...	$3.50
Alden	2.50	4.00	...	3.50
Kiester	2.50	4.00	...	3.50
LeRoy	2.50	4.00	2.25	3.50
Lyle	2.25	4.00	...	3.50
Sanborn	2.50	4.00	...	3.50

	R-M-B		R-G-R	
	(a)	(b)	(a)	(b)
Adams	$ ...	$3.25	$1.50	$ ...
Alden	...	3.25	1.50	...
Kiester	...	3.25	1.50	2.25
LeRoy	...	3.25	1.50	2.25
Lyle	...	3.25	1.50	2.25
Sanborn	...	3.25	...	...

	R-M-R	
	(a)	(b)
Adams	$2.00	$2.50
Alden	2.00	2.50
Kiester	2.00	2.50
LeRoy	1.75	2.50
Lyle	1.50	2.50
Sanborn	1.75	2.50

	R-1		R-2	
	(a)	(b)	(a)	(b)
Adams	$1.75	$2.75	$ ...	...
Alden	1.75	2.75	1.50	...
Kiester	1.75	2.75	1.50	...
LeRoy	1.75	2.75	1.50	...
Lyle	1.50	2.75	...	...
Sanborn	1.50	2.75	...	...

	R-4		B-X	
	(a)	(b)	(a)	(b)
Adams	$ ...	$2.25	$ .50	$1.00
Alden	...	2.25	.75	1.00
Kiester	...	2.25	.50	1.00
LeRoy	...	2.25	.50	1.00
Lyle	...	2.25	.50	1.00
Sanborn	...	2.25	.50	1.00

	R-X		SS	
	(a)	(b)	(a)	(b)
Adams	$ .50	$ .75	$ ...	$ ...
Alden	.50	.75	.35	.60
Kiester	.50	.75	.35	.60
LeRoy	.50	.75	.50	.60
Lyle	.50	.75	...	...
Sanborn	.50	.75	...	...

Common Battery: Business and residence, 50 cents per month in addition to the regular rate for service.

Mileage Charge: 25 cents per quarter mile or fraction thereof (a) 50 cents per quarter mile or fraction thereof (b).

Miscellaneous Charges: Extension Bell $0.15 (a) Net; $0.25 (b) Net; Extension Gong, $0.25 (a) Net; $0.50 (b) Net.

V V

Illinois Company Plans to Triple Capital Stock

A special meeting of stockholders of the Millstadt (Ill.) Telephone Co. will be held Nov. 14, at which time a proposition to triple the capital stock of the company will come up for action.

Present capitalization is $15,000 and the plan brought up by the board of directors calls for 600 shares of stock, instead of the 200 now out, valued at $75 a share, a total capital of $45,000.

Stockholders, of which there are about 150, will have the right to buy additional stock at par, being allowed to purchase two shares for each one they now own. This sale will last for 10 days after the action of the company has been recorded.

During the next 10 days, stockholders of record may bid for the remaining shares at $75 per share. At the end of that period, if bids are received for more shares than are available, the shares will be awarded proportionately.

After the expiration of the second period, the remaining stock, if there is any, will be offered for sale generally, but not less than $75 a share.

More capital is needed, company officials say, because of the greater volume of business being done, which requires more investment.

In 1937 the company had 343 stations with a rental value per year of $5,900 and a toll revenue of $2,670.

STROMBER

long life telephone dry cell

"Eveready" "Columbia" "Gray Label

• Higher sustained voltage • Long
er life • Rock-bottom economy

These qualities, more importa
now than ever before, are assure
through the constant supervisio
of America's largest dry batter
laboratory.

Made by the makers of "Eveready
"Air Cell" Operators' Transmitte
Batteries.

The quality cell preferred by telephone engineers

STROMBER

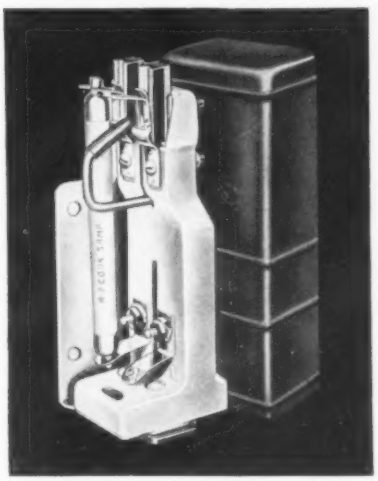
BRANCH OFFICES: CHICAG

R CARLSON Recommends

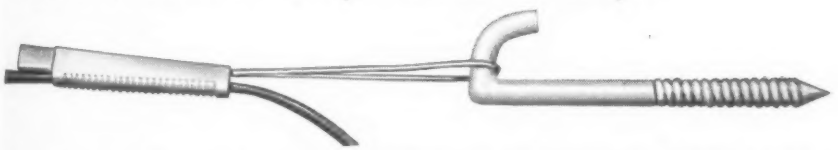
cook type 0 *sub-station protector*

This single circuit protector, equipped with fuses and lightning arresters, is unexcelled for either indoor or outdoor use. Special Cook-engineered features include:

1. Heavy white glazed porcelain designed to prevent surface leakage between current-carrying parts.
2. Tru-Gap high-potential dischargers that will not ground the line.
3. Phosphor bronze fuse and arrester springs, zinc hood, Everdur studs and washers. Hood is grounded when in place.
4. Choice of types and lengths of Cook Telephone Fuses.



reliable *drop wire clamps*



***Manufactured by* RELIABLE ELECTRIC COMPANY**

Reliable Drop Wire Clamps are unique in that they:

1. Prolong life of drop wires by permitting free swinging at the support, placing all wear on the hardware.
2. Permit stringing and sagging of service drops before cutting wire.
3. Automatically tighten under load, assuring a firm grip without damaging insulation.
4. Eliminate sharp bends in wire.

Type "P" is designed for twisted pair or parallel drop wire to poles and buildings. Also available in Type "R" for resistance braid (heavy duty drop wire).

"Reliable identifies the quality"

crapo galvanized strand

Guy and Messenger

LONG LIFE — LOW COST

The superior tensile properties inherent in steel are used to full advantage in *Crapo* Galvanized Strand. The tightly adherent zinc coating applied by the *Crapo* Galvanizing Process provides lasting protection against corrosion, prolongs the life of the strand. Controlled ductility makes *Crapo* Strand easy to work and to serve. Low first cost and low yearly cost result in important economies.

The all-round dependability of *Crapo* Galvanized Steel Strand is being demonstrated constantly by its outstanding performance in service. There is a size and grade for all practical needs.

ER CARLSON FACTORY, GENERAL OFFICES: ROCHESTER 3, N. Y.

HICAGO AS CITY 8, SAN FRANCISCO 3; IN CANADA: STROMBERG-CARLSON COMPANY LTD. TORONTO

STROMBERG Telephone CARLSON

Last year the company served 648 stations, with a rental value of $12,300 and a toll revenue of $10,500.

Although capitalized at $15,000, the net worth of the company according to the Jan. 1 annual report, was $34,743, representing an increase of more than $3,000 over the previous report. All of this consisted of extensions and investments paid out of profits.

V V

Lexington, Ky., Telephone Co. Asks Rate Increase

The Lexington (Ky.) Telephone Co., serving 24,000 subscribers in Fayette, Woodford, and Jessamine counties, petitioned the Kentucky Public Service Commission Oct. 30 for authority to increase rates $214,800 annually.

The petition asked that the new rates become effective Nov. 21.

If the increase is granted, the company's annual revenue would be raised 24 per cent, the petition said. Sharp increases in the cost of materials and labor were cited as chief reasons for making the increase necessary.

V V

Walker Named Acting FCC Chief

President Truman Nov. 3 designated Paul A. Walker acting chairman of the Federal Communications Commission.

Selection of Mr. Walker followed the recent resignation of Chairman Charles R. Denny.

V V

Low Rates Hinder Service

Because the 75-cent monthly rates paid by the 39 patrons of the Burksville (Mo.) Telephone Co. doesn't allow Walter Oster, for 25 years operator of the exchange, sufficient funds to hire help, telephone service will be cut after Jan. 1, it has been announced. Mr. Oster operates the exchange in his one-room home.

V V

Asks Rate Increase

Because of increased operating costs, the Ohio Associated Telephone Co. asked the Ohio Public Utilities Commission Oct. 30 for permission to increase rates in the Marion district.

V V

Incorporation

Wilkesboro-Taylorsville Mutual Telephone Co., Pores Knob, N. C., has obtained a certificate of incorporation to maintain a rural telephone line with authorized capital stock of $900, of which stock totaling $600 has been subscribed by the incorporators, which include R. Don Laws, of Moravian Falls, N. C.; R. C. Meadows and P. R. Lowe, both of Pores Knob.

Files $2,034 Damage Suit Against City of Cincinnati

The Cincinnati & Suburban Bell Telephone Co., recently filed a $2,034 damage suit against the city of Cincinnati, asking reimbursement of expenses allegedly incurred Jan. 3, when a waterworks employe drove a pneumatic drill through an underground cable.

The petition itemized the cost of repairs to the company as $48 for materials; $1,578 for labor and $407 for incidental expenses, plus odd cents.

The company maintained in the action that plats of the underground cables were available, but that no effort had been made by the city employes to examine them.

V V

Set Southern Bell's Alabama Rate Hearing for Dec. 8

The Southern Bell Telephone & Telegraph Co.'s petition for approval of a 15 per cent increase in its charges has been set for hearing Dec. 8 by the Alabama Public Service Commission.

Commission Chairman Gordon Persons estimated the increase sought by the company would be approximately $2,500,000. The company said it seeks approval of the higher rates to finance an expansion program and offset higher operating expenses.

V V

Set Bell's North Carolina Rate Hearing for Nov. 13

The North Carolina Utilities Commission has set Nov. 13 for hearing on the petition of the Southern Bell Telephone & Telegraph Co. for authority to increase rates. (TELEPHONY, Oct. 25, p. 120.)

The company is seeking a gross revenue increase of $680,000, which is estimated to give it a net return of about $325,000.

V V

New York Company Asks for $146,000 Annual Increase

The New York Department of Public Service was asked recently to authorize rate increases for an estimated 30,000 customers of the Upstate Telephone Co., Johnstown, which serves 11 counties. (TELEPHONY, Jan. 11, p. 26.)

The last increases were authorized between 16 and 20 years ago, the company said. Briefs and charts designed to show the rise in operating costs since then were presented.

The company asked for rate increases totaling an estimated $146,000 annually. These would range from 50 cents to one dollar a month for business telephones and from 25 to 50 cents for residential service. Increases in residential service for certain small communities, were not requested.

V V

Summary of Commission Rulings and Hearings

California Public Utilities Commission

Oct. 27: Hearing on complaint of William E. Sands vs. Pacific Telephone & Telegraph Co. regarding charge Los Angeles.

Oct. 27: Hearing on petition of Colfax (Calif.) Telephone Exchange for authority to increase rates and charges.

Oct. 27: Hearing on petition of Sunland-Tujunga Telephone Co., Tujunga, for authority to sell 750 shares of capital stock.

Oct. 27: Order fixing the price at which Pacific Telephone & Telegraph may sell $100,000,000 of debentures.

Oct. 27: Order authorizing Associated Telephone Co., Ltd., Santa Monica, subject to supplemental order fixing the price, to issue $6,000,000 of bonds and 150,000 shares of preferred stock.

Illinois Commerce Commission

Oct. 29: Hearing on application of Illinois Allied Telephone Co., Princeton, for authority to issue $358,000 par amount of First Mortgage 3¾% Bonds, Series A, to mature Apr. 1, 1971.

Kansas Corporation Commission

Nov. 10: Hearing on application of Barnes (Kan.) Telephone Co. for authority to change rates.

Nov. 10: Hearing on applications of Hillsdale (Kan.) Central Telephone Association for permission to cease operating as a public utility; and of R. C. Welch for permission to transact business of a public utility and to change rates at Hillsdale.

Nov. 14: Hearing on complaint of Guy S. Van Marter, et al, vs. the Grinnell (Kan.) Telephone Co. for services rendered.

Nov. 14: Hearing on application of J. W. Kline for permission to cease operating a public utility at Grinnell.

Nov. 14: Hearing on application of Albert H. Hoff for authority to transact business of a public utility in Southwest Sheriden County and Northwest Gove County.

Nov. 17: Hearing on application of Southern Kansas Telephone Co., Burden, for authority to change rates for all exchanges.

Nov. 17: Hearing on application of Galen D. and Frances J. Force for permission to discontinue free service line between the Circleville Telephone Exchange and the Holton Telephone Exchange and to cease operating a public utility at Circleville.

Nov. 17: Hearing on application of Albert E and Dorothy E. Borgeson for authority to transact the business of a public utility at Circleville.

Oklahoma Corporation Commission

Oct. 29: Hearing on application of Spencer (Okla.) Telephone Co. for increased rates.

Nov. 12: Hearing on applications of Mooreland (Okla.) Telephone Co. and Woodford (Okla.) Telephone Co. for increased rates.

Nov. 12: Hearing on application of Otto Colvin for authority to purchase the Ardmore-Graham Toll Line, Ard-

Plastic-insulated wire leaving the extruding machine.

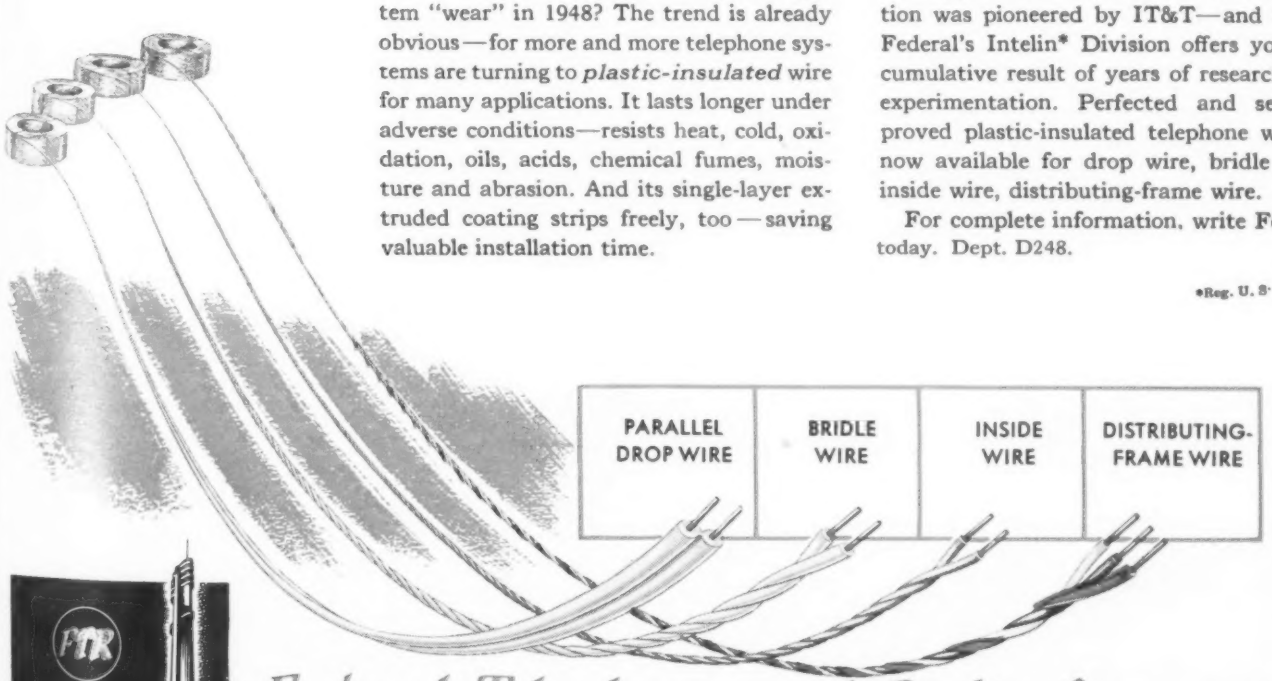
. . . for LONGER LIFE and EASIER STRIPPING

WHAT WILL the well-wired telephone system "wear" in 1948? The trend is already obvious—for more and more telephone systems are turning to *plastic-insulated* wire for many applications. It lasts longer under adverse conditions—resists heat, cold, oxidation, oils, acids, chemical fumes, moisture and abrasion. And its single-layer extruded coating strips freely, too—saving valuable installation time.

The application of plastics to wire insulation was pioneered by IT&T—and today Federal's Intelin* Division offers you the cumulative result of years of research and experimentation. Perfected and service-proved plastic-insulated telephone wire—now available for drop wire, bridle wire, inside wire, distributing-frame wire.

For complete information, write Federal today. Dept. D248.

*Reg. U. S. Pat. Off.



An IT&T Associate

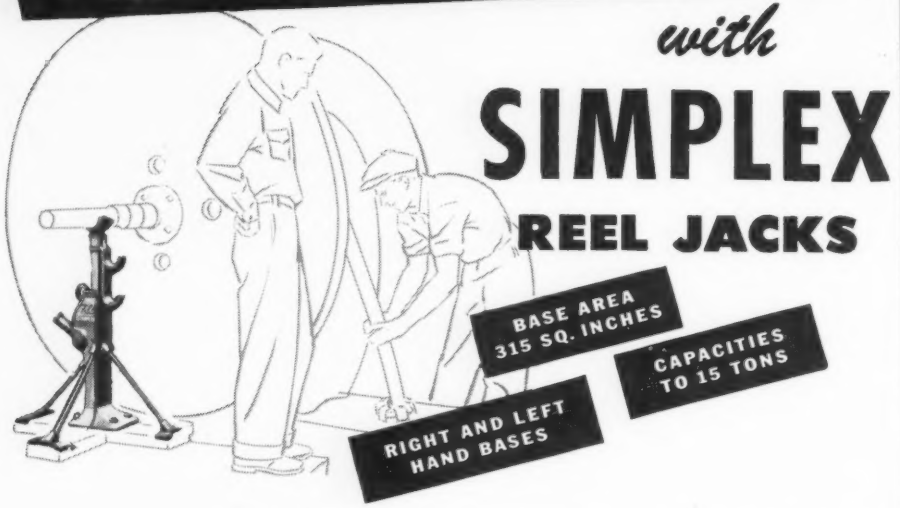
KEEPING FEDERAL YEARS AHEAD... is IT&T's world-wide research and engineering organization, of which the Federal Telecommunication Laboratories, Nutley, N. J., is a unit.

Federal Telephone and Radio Corporation

SELENIUM and INTELIN DIVISION, 1000 Passaic Ave., East Newark, New Jersey

In Canada:—Federal Electric Manufacturing Company, Ltd., Montreal, P. Q.
Export Distributors:—International Standard Electric Corp. 67 Broad St., N. Y.

"PAY OUT"—faster, easier
with
SIMPLEX
REEL JACKS



Get substantial man-hour savings with a set of Simplex Reel Jacks for "pay out" of wire, cable or steel rope on spools, drums or reels. Right and left hand bases permit operators to lift evenly in sight of each other. T-shaped base area of 315 square inches increases safety and stability. Adjustable tie rods insure non-rocking foundation.

Send for illustrated Bulletin U-46.

Simplex
LEVER - SCREW - HYDRAULIC
Jacks

TEMPLETON, KENLY & CO.
1044 South Central Avenue
Chicago 44, Illinois

MEREDUC
TRADE MARK

Pressure Treatment of Southern Pine Poles, Cross-arms, Conduit, Cover Plank, Ground Wire Moulding with No. 1 Creosote Oil or Pentachlorphenol carried in stock permitting prompt shipments of carload and less than carload orders.

WILLIAM C. MEREDITH COMPANY, INC.

TREATING PLANT
EAST POINT, GA.

Mailing Address
P.O. Box 31, Station "A"
Atlanta, Ga.

more, and the Graham (Okla.) Telephone Exchange.

Jan. 20, 21 & 22, 1948: Hearing on application of Southwestern Bell Telephone Co. for increased rates to be adjusted among its 143 exchanges in Oklahoma.

Pennsylvania Public Utility Commission

Oct. 30: Hearing on complaint of Pennsylvania P. U. C. v. Warren County Telephone & Telegraph Co. alleging that the company has failed to maintain adequate, efficient and safe facilities and service that is reasonably continuous and has failed to maintain sufficient stock and equipment essential to the proper maintenance of the telephone plant. Rule to show cause why the company should not cease and desist all of its operations, including the rendering of any service whatsoever, for failure to comply with the Commission's order of Dec. 8, 1941.

New York Public Service Commission

Oct. 27: Hearing on petition of Upstate Telephone Corp., Johnstown, for authority to increase its rates.

Oct. 27: Hearing on petition of Dunkirk & Fredonia Telephone Co., Fredonia, for authority to issue debenture notes, preferred and common stock, and to increase capital stock and authorized shares.

Nov. 7: Hearing on joint petition of Chatham (N. Y.) Telephone Corp. and Columbia & Rensselaer Telephone & Telegraph Co., West Lebanon, for authority to issue certain capital stock and notes by the Chatham Telephone Corp. and certain notes by the Columbia & Rensselaer Telephone & Telegraph Co. for approval of the consolidation of said corporations.

Wisconsin Public Service Commission

Oct. 20: Hearing on application of Wisconsin Telephone Co., Milwaukee, for authority to increase rates.

Oct. 20: Hearing on application of Brule (Wis.) Telephone Co. for permission to extend service and to establish special rates in Brule, Highland Douglas Co. and township of Barnes.

Oct. 20: Hearing on application of Danbury (Wis.) Telephone Co. to increase rates.

Oct. 22: Hearing on application of Thorp Telephone Co. for increased rates.

Oct. 22: Hearing on application of Bloomer Telephone Co., Bloomer, for authority to increase rates.

Oct. 24: Hearing on application of Belmont & Pleasant View Telephone Co., Belmont, for authority to disconnect lines No. 4 & No. 6 from the Waldwick exchange.

Oct. 28: Hearing on joint application of Wisconsin Telephone Co., Milwaukee, to purchase and Big Suamico Telephone Co., Suamico, to sell property of the latter, Brown company; and the application of Wisconsin Telephone Co. to apply rates charged at its Green Bay exchange for service to be extended to former customers of Big Suamico Telephone Co.

Oct. 29: Hearing on application of Langlade Telephone Co., Antigo, to rebuild, replace and enlarge part of its telephone plant.

Nov. 4: Hearing on application of New Auburn (Wis.) Telephone Co. for authority to increase rates.

Nov. 4: Hearing on joint application of Hartland Cooperative Telephone Assoc., Esdaile, and Herbert Telephone Co. for authority to increase toll rates between Ellsworth and Herbert and between Ellsworth and Esdaile.

The White House Signal Team

(Continued from page 15)

band. The switch was thrown and the set tuned. German speech issued from the speaker. With 10 minutes to go, two soldiers quickly strung an antenna outside the Roosevelt lodge. A third soldier polished the battered radio cabinet, and another made certain that the tuning control was not touched. Then, tenderly, the set was carried to the President's study where it was plugged in. The "Boss" and Mr. Hopkins listened while a stenographer recorded the frenzied phrases. This attribute was noteworthy about the White House official family—they never questioned our means of carrying out an order or request so long as it was accomplished.

Top-flight plans, intimate correspondence, and war strategy discussions among President Roosevelt, Prime Minister Churchill, Generalissimo Stalin, General Eisenhower and many others were encoded and decoded by the enlisted men and officers of the Signal Detachment with never a slip. The responsibility was heavy, but it is on record that no enlisted man of the White House Signal Detachment failed in a crisis or was derelict in his duty.

As the tempo of war activities increased, the manual coding and decoding of the heavy traffic to and from the President's desk proved too slow. Sixty-word teletype printers with cryptographic attachments were installed at Hyde Park and in the map room of the White House. Similar equipment was carried and installed everywhere the President traveled.

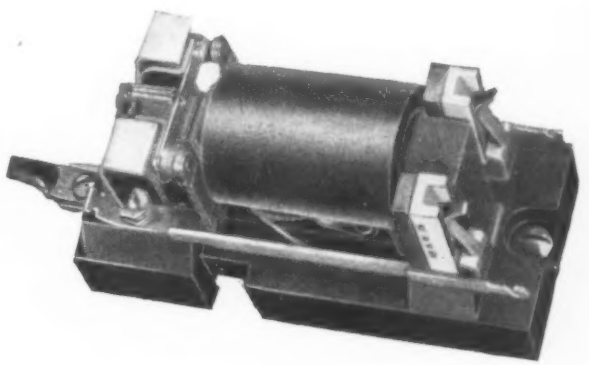
Army and navy personnel manned the map room where the latest war information from all over the world was plotted. The President and his staff inspected these maps daily, and here many military and naval plans were germinated. The White House communications center was run by the combined staff, while the White House Signal Detachment handled operations in the field.

In May, 1943, Colonel Beasley, the commanding officer, left the outfit and prepared to go overseas; and Maj. Dewitt Greer took command of the detachment. In the signal detachment shop, work went forward in adapting equipment to specialized tasks. Signal equipment was mounted in saddle bags on motorcycles, with a speaker on the handlebars and a throat microphone for transmission. Police-type 35-watt radios were installed in jeeps and station wagons. Metal detectors were designed and built for secret service use. Miniature receivers and transmitters were adapted and improved. A special broadcast set was constructed for the President's use. In the continuous race to develop new, better, or more efficient methods, nothing was spared. Field crews were out constantly on surveys to test equipment or locations for optimum results.

As early as May, 1942, in preparation for the President's tour of the country, the Signal Detachment was ordered to prepare a railroad car as a mobile radio station. A combination coach and baggage car, No. 1401, was secured by the Transportation Corps and work began. To meet the standards of the American Association of Railroads, extensive modifications were necessary. Seven inches above the roof was the maximum space allowable for tunnel clearance; so antenna wires were strung inside insulated tubing and mounted on porcelain high tension skirted insulators parallel to the roof. A fireproof double walled tank with a pump feed was built underneath the car to supply the gasoline power units

FAHNESTOCK
ELECTRIC COMPANY, INC.

Type 3-A
Arrester Relay



BUCKEYE
TELEPHONE & SUPPLY CO.

COLUMBUS 6, OHIO

Are you troubled with heavy induction from Rural Electrification Lines strung parallel or crossing your rural or toll lines?

While the No. 3-A Arrestor Relay does not eliminate humming and other noises, it will eliminate grounded arrestors due to this induction; it is standard equipment on all major telephone and telegraph systems.

Write for circular regarding the 3-A arrestor relay.

which ran the transmitters. Among other items of radio equipment, Car 1401 carried a dual channel 500-watt transmitter, a 250-watt FM transmitter-receiver combination, and a 75-watt transmitter for emergency use. After shakedown trials, the generators were converted to Diesel power, and the 500-watt generators were increased to two kilowatts. By further modifications the static and vibration apparent in the early trials were minimized. Thereafter, wherever the President traveled on the North American continent, to Canada, Mexico, and the West Coast, Car 1401's facilities enabled the Commander in Chief to call the signals to the world-wide military team.

When the President's train put in on a siding at Georgian Bay, Ontario, in advance of the Quebec Conference in August, 1943, Car 1401 was the mobile powerhouse which furnished rectified power for the train batteries, pumped water and air for the cars, and provided constant radio communications to station WAR in Washington. Field telephones were strung for the sentries, and frequency modulation radio was used between the train and small boats when the President fished.

At the staid Chateau Frontenac at Quebec, where the conferees assembled, a signal center was installed, with full duplex teletype conference circuits and additional telephone facilities provided. Telephone cables were festooned around the outside of the hotel. At the Citadel, the fort where the President and Prime Minister Churchill conferred, the Signal Detachment set up and operated the communications facilities for the President and his staff.

The speed and efficiency of United States Army Signal Corps equipment was never better demonstrated than at Hyde Park during Prime Minister Churchill's second visit. In a test of speed, the Prime Minister and the President sent identical messages over British and United States facilities to Australia. The President had his answer in less than two hours; the Prime Minister got his the next day. Again, in Canada, the allied staff had difficulty believing that the coded answer which came from General MacArthur over a conference circuit had come so swiftly over such a distance. Over the same conference circuit, decisions were reached which moved up the day of reckoning for the Japs.

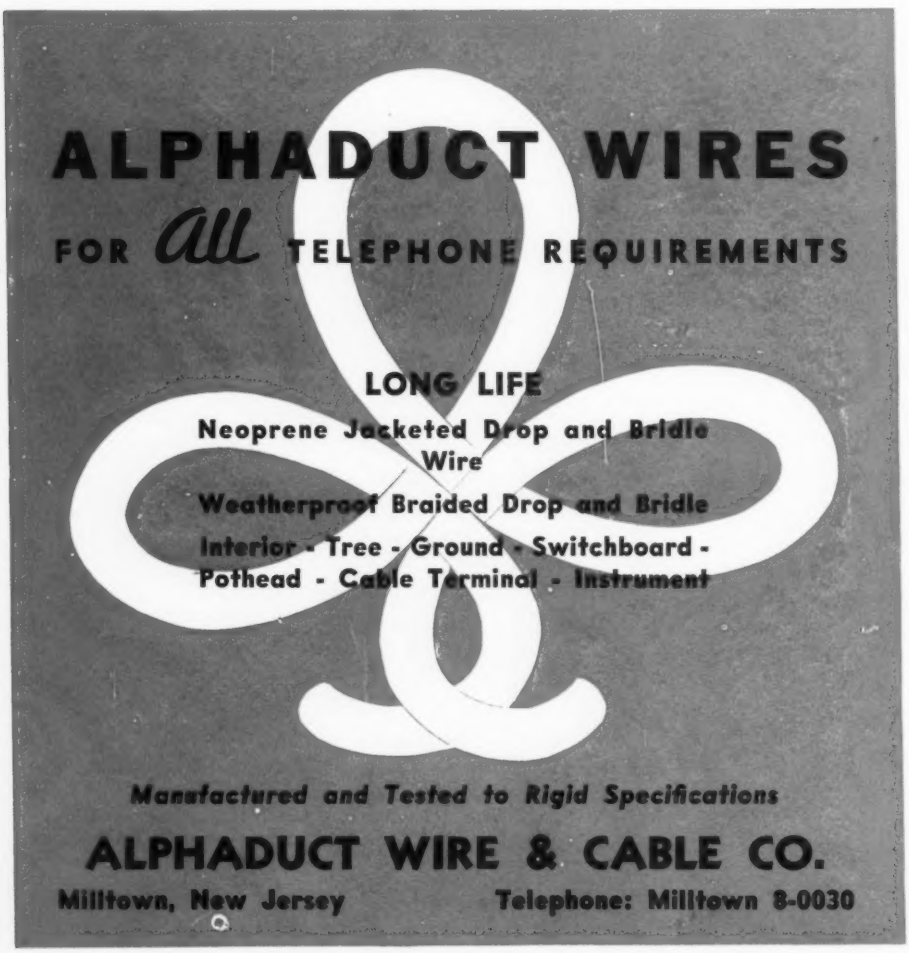
In preparation for the Teheran conference, signal detachment personnel leap-frogged ahead of the President, alerting personnel at various points, setting up radio and telephone channels and moving on. With the locale of the conference held secret until the last minute, strange situations developed as a result of detachment personnel globe-hopping with A-1 priority travel orders. To get the network functioning, one officer made a record trip to his post in Asmara, Eritrea, where a relay station was set up; and another officer and enlisted man traveled to Cairo, Egypt, in 76 hours — bucket seats all the way.

The conference which began at Teheran was continued in the shadow of the Pyramids. When the conference broke up, a trek was made across North Africa, stopping at General Eisenhower's headquarters in Tunis. The President flew to Malta, then to Casablanca, where he boarded a ship for home.

In the summer of 1944, President Roosevelt, Prime Minister Churchill and the combined staffs again met at Quebec. General Stoner supervised the installation of communications facilities at the Chateau Frontenac, with the White House detachment handling the President's private communications.

To attend the meeting of the Big Three at Yalta, the President traveled by ship through submarine-infested waters. From aboard the U.S.S. *Catoctin* off Yalta on the Black Sea, the signal office rushed equipment into position ashore; and the detachment again swung into action. Communications were ferried to the Naval station for transmittal. In mid-February, when the agreements were concluded, the travel-tested men of the White House Signal Detachment headed homeward with the presidential entourage.

In addition to setting up temporary installations at conference sites, the White House Signal Detachment as early as 1943 operated fixed radio stations in Washington, Baltimore, Philadelphia, New York, and Shangri-La. Regardless of trips and conferences, communications development went on. With the cessation of hostilities, the detachment could view with satisfaction the number of "firsts" compiled in the course of duty: first to construct and operate a long-range mobile radio station in a railroad car with high powered equipment; first to design and develop pocket-size metal detectors; first to design and develop pocket-size frequency modulation radio transmitters and receivers; first to keep a United States President in 24-hour communication from any point on the North American continent to any point in the world where United States personnel were stationed.


ALPHADUCT WIRES
FOR all TELEPHONE REQUIREMENTS
LONG LIFE
Neoprene Jacketed Drop and Bridle Wire
Weatherproof Braided Drop and Bridle
Interior - Tree - Ground - Switchboard - Pothead - Cable Terminal - Instrument
Manufactured and Tested to Rigid Specifications
ALPHADUCT WIRE & CABLE CO.
Milltown, New Jersey
Telephone: Milltown 8-0030

Don Walker Buys Red Jacket Telephone Co.

Don W. Walker recently purchased the Red Jacket Telephone Co., Shortsville, N. Y., from Mrs. Daisy Osgood, widow of Charles P. Osgood who founded the company.

Mr. Walker resigned Mar. 1 as executive vice president of the New York Telephone Association to become an executive of the Ontario Telephone Co., Clifton Springs, and the Trumansburg (N. Y.) Home Telephone Co., as well as director and sales manager of the Commercial Cord Co. at Clifton Springs.

V V

Four Nebraska Companies Sold

Purchase of four Class F Nebraska companies have been reported as follows: Clifford Pentico purchased from Earl E. Potter the Hoskins (Neb.) Telephone Co., which reported operation of 51 stations with 205 switched subscribers as of Dec. 31, 1946; Fred Dybdahl bought the Welfleet Telephone Co., 53 stations, from S. W. McDermott; Leonard Moody purchased the Home Telephone Co., Lynch, 162 stations and 34 switched subscribers; and Harry Honey repurchased from Robert Walker the Verdel Telephone Co., 64 stations.

V V

OBITUARIES

A. R. WORKMAN, 83, president of the Marseilles (Ill.) Telephone Co., died Oct. 20 at the Ryburn King Hospital in Ottawa, following a week's illness.

Mr. Workman was a life member of the Independent Telephone Pioneer Association. He started in the telephone business in Ohio in the year 1894.

The deceased is survived by his widow, two daughters, three grandchildren and three great grandchildren.

• • •

TERESA MILHAUPT, 58, for 28 years chief operator of the Northern Ohio Telephone Co. at Monroeville, died Oct. 24 following a heart attack.

Answers to Traffic Questions On Page 16

(1) A temporary suffix is a prescribed letter used in reassigning numbers appearing in the current directory.

(2) The report "OD" is passed.

(3) "EMER" is entered in the "Special Instruction" space.

(4) The call should be acknowledged by saying "Hotel."

(5) Yes. "Ho" should be entered in the "Special Instruction" space.

Crapo
Galvanized Steel
CABLE LASHING WIRE

Widespread adoption of the "spinning" method of cable suspension has brought increased demands for a superior and consistently dependable lashing wire.

Crapo Galvanized Steel Lashing Wire (.091 inch diameter) has been developed specially to fill these demands. It is manufactured from selected steel, is carefully processed and is given a heavy zinc coating for longer life. The finished wire conforms, in every respect, to the exacting specifications of leading telephone engineers—for ductility, tensile strength, torsion and galvanizing.

Crapo Galvanized Steel Lashing Wire is put up in neat, compact, thread-lay coils for ease in handling. For use in modern cable-spinning machines. Packed in cartons containing 6 coils, each coil containing approximately 325 feet of wire.

☆

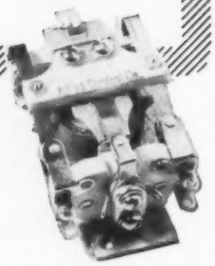
"STAINLESS STEEL"

Crapo Cable Lashing Wire also can be supplied in "Stainless Steel" (.065 and .045 inch diameter). Complete details will be forwarded upon request.

Contact your jobber of *Crapo* Galvanized Telephone Wire and Strand or write direct for further information!

INDIANA STEEL & WIRE COMPANY · MUNCIE, INDIANA

Relays!



AVAILABLE FOR IMMEDIATE DELIVERY

There are more than a million relays in our huge stock! We have hundreds of types and ratings in quantities adequate for production runs. These relays are brand new equipment and manufactured by leading makers to rigid Government specifications. Each relay is inspected, individually packaged and fully guaranteed. Prices are well below the market. Write or wire for special Relay Catalog or send your requirement.

Manufacturers and Distributors

Wells maintains one of the world's largest inventories of highest quality-radio-electronic components. Our new catalog, now ready, will be mailed upon request.

WRITE FOR CATALOG!

WELLS SALES, INC.

Dept. TE, Chicago 10, Ill.
320 N. La SALLE ST.

Be a MOBILE RADIO COMMUNICATION TECHNICIAN

QUALIFY FOR YOUR RADIO-TELEPHONE LICENSE NOW!

Get in on the ground floor for the big expansion of Mobile Communication Systems, now under way. Get ready for a Better Job, More Interesting Work, More Pay—*A Second Class Telephone License Will Qualify You!*

CLEVELAND INSTITUTE WILL PREPARE YOU TO PASS THE FCC COMMERCIAL LICENSE EXAMINATIONS.

Qualified, competent instructors, ample, personalized instructional aids, orderly, progressively arranged study assignments in recognized, approved technical texts—these are only a few advantages you gain thru the CIRE plan for spare-time home study training for professional self-improvement.

FREE BOOKLET tells you the Government Requirements for all classes of commercial license examinations. Send for a copy, and for information about CIRE Home Study courses to prepare for those examinations.

CLEVELAND INSTITUTE of RADIO ELECTRONICS

Approved for Veteran Training

T-11 Terminal Tower Cleveland 13, O.

CLEVELAND INSTITUTE OF RADIO ELECTRONICS,
T-11 Terminal Tower, Cleveland 13, Ohio

Gentlemen: Please send your FREE BOOKLET and Information about your Study Course to Pass FCC License Examinations.

NAME_____

ADDRESS_____

CITY_____ STATE_____

☐ Check here, if a Veteran.

A. H. WARNE

B. G. HALSTEAD

Warne, Halstead Named By Indiana Bell

A. H. Warne, Indianapolis, Ind., auditor of disbursements for the Indiana Bell Telephone Co., was elected secretary and treasurer of the company at a meeting of the board of directors held Oct. 22. He assumed his new duties on Nov. 1, succeeding B. G. Halstead, who has resigned and was appointed assistant to the president of the company.

Mr. Warne has had wide experience in accounting work with the Indiana Bell. After graduating from the Indiana University school of business administration in June, 1925, he joined the accounting department as a clerk in the chief accountant's division. In 1928 he was made a supervising clerk in that division. Later that year he was placed in charge of statistical work and continued in that capacity until he was promoted to auditor of disbursements in 1938.

Mr. Halstead, a veteran telephone man, completed 45 years of continuous service in the Bell System last March. He came up through the ranks after starting his career with the Western Electric Co. at Chicago in 1901. He later joined the forces of the former Central Union Telephone Co., predecessor of the Indiana Bell.

When the Indiana Bell Telephone Co. was formed in 1920, Mr. Halstead was made appraisal engineer and remained at that post until November, 1929, when he was appointed attorney. In July, 1945, he was elected secretary and treasurer.

V V

K. L. Schroeder Joins Illinois Company

K. L. Schroeder, formerly manager of the Cadiz district for the Ohio Consolidated Telephone Co., recently announced that on Sept. 1 he assumed the managership of the DeKalb, Lee, Malta, Maple Park and Shabbona exchanges of the DeKalb-Ogle Telephone Co., Sycamore, Ill.

Mr. Schroeder has been identified with the telephone industry for 16 years. From 1931 to 1938, when he became associated with the Illinois Telephone Co. at Roodhouse, Ill., he was with the Long Lines Division of the American Telephone & Telegraph Co. and the Geneseo (Ill.) Co-operative Telephone Co.

Late in 1938 he became manager of the Wiconisco Telephone Co., Elizabethville, Pa., and was transferred to Cadiz, Ohio in 1941.

V V

J. B. Quatman Nominated For Congress

J. B. Quatman, Lima, Ohio, son of George B. Quatman, president of the Lima Telephone & Telephone Co., and Telephone Service Co. of Ohio, won the Democratic candidacy for congressman of the fourth district of Ohio in the Ohio primaries on Oct. 7. He ran against three other candidates.

Mr. Quatman is an attorney and instructor of law at Ohio Northern University. He served in the armed forces during the last war in the intelligence corps.

V V

Sells Company

The Minnesota Railroad & Warehouse Commission granted the Clover Hill Telephone Co. on Oct. 17 permission to sell all poles, wires and other equipment, with the exception of the telephone instruments, to the Kanabec County Mutual Telephone Co. of Mora. The Clover Hill company serves ten subscribers.

8,000 Persons Visit Copperweld's Plant

During its open day on Oct. 16, the Copperweld Steel Co., Glassport, Pa., was host to about 8,000 visitors.

The unique manufacturing processes involved in the making of Copperweld products attracted the attention of veteran steel men as well as the friends and families of Copperweld's employes. Of particular interest were the casting and rolling operations.

In the casting department, molten-copper is poured around a heated alloy steel billet inside a graphite mold to form the Copperweld ingot. This ingot then is started through the rolling mill and reduced from about eight inches in diameter to a rod of about three-eighths of an inch in diameter. Cold drawing through tungsten carbide dies reduces the rod to wire for telephone, telegraph and signal lines as well as for many other uses.

Another important application is for grounding. Here, Copperweld ground rods provide lightning protection for billions of dollars worth of property and equipment. By combining a number of Copperweld wires or a combination of Copperweld and copper wires, various types of strand and conductors are produced for guying poles and structures, for supporting aerial cables, for power transmission and distribution, and for railway signal bonds. These are but a few of the many uses for Copperweld products.

The molten-welding of a copper exterior to a high-strength alloy steel core in an exclusive Copperweld process—being found nowhere else in the world.

New "Alumitel" Telephone Conductor Wire

The Nichols Wire & Steel Co., Davenport, Iowa, announces the availability of an aluminum alloy No. 12B. W. G. (0.109 ins. dia.) wire processed for use in telephone and telegraph service.

Known as "Alumitel" this conductor wire is rust-proof and highly resistant to attack by sulphur fumes generally encountered along railroad right-of-ways. Because of its lightness it is easy to work with and workmen can handle more footage at one time.

"Alumitel" has a direct current resistance of approximately one-third that of galvanized iron per loop mile of circuit, it is said.

The use of aluminum for electrical service is not new. There are approximately 1,500,000 miles of aluminum electrical conductor wire in exposed service in the country today. Aluminum has the Underwriters' approval for electrical house wiring, the company states.

"Alumitel" is furnished in one-half mile paper wrapped coils. With every coil is included an instruction sheet giving sag tables and other pertinent data. Also available is soft "Alumitel" line wire, made in 0.109 ins. dia. (12 B. W. G.). It is packed 300-18 ins. pieces to a carton.

For additional details and prices write direct to Nichols Wire & Steel Co.

IT'S COMPACT
IT'S POWERFUL
It's the NEW
COFFING
"MIGHTY-MIDGET"
PULLER
WEIGHS
6½ lbs.
PULLS
500 lbs.
Use the new "Midget" Puller to save time and strength on scores of jobs in utility and electrical construction and maintenance. One of the most compact, versatile tools ever made for tightening wire, tensioning guys, lifting equipment. 500 lb. capacity on lift or pull, requiring only 28 lbs. of effort at maximum load. Snaps on lineman's belt. Two-way "Safety-Load" handle serves as lever or high speed crank. Ask for Bulletin TMP-1.
Other Coffing Products: The HOIST-JACK • SAFETY-PULL HOISTS • ELECTRIC HOISTS • SPUR-GEARED HOISTS • LOAD BINDERS • TROLLEYS
COFFING
COFFING HOIST COMPANY
DANVILLE, ILLINOIS

dependable
Cedar Poles
MICHIGAN POLE & TIE CO.
NEWBERRY—GRAND RAPIDS
MICHIGAN

FOR SALE

Pursuant to an order of the Probate Court of Marion County, Indiana, we are offering for immediate sale controlling interest in two independent telephone companies operating in northeastern Indiana, represented by the following stock:

Commonwealth Telephone Corporation

4,780 shares common stock
235 shares preferred stock

Northern Indiana Telephone Company

6,008 shares common stock

Written bids for the above must be for the entire offering and accompanied by certified check in an amount not less than $10,000.00, payable to The Union Trust Company of Indianapolis, Co-Administrator, 120 East Market Street, Indianapolis 9, Indiana. Statistical information furnished on request.

Wilbur J. Smith, and
The Union Trust Company of Indianapolis
Cecil A. Berry, Trust Officer
Co-Administrators, Carl H. Mote Estate

Cadick & Burns
John S. Powell
Attorneys for Co-Administrators
Indianapolis, Indiana

POLES

B. J. Carney & Co., 100 N. 7th St., Minneapolis, Minn.—Western red cedar poles. Pentrex Butt Treated or Plain.

C. M. Christiansen Co., Phelps, Wis.—Northern White Cedar Poles, plain or butt treated.

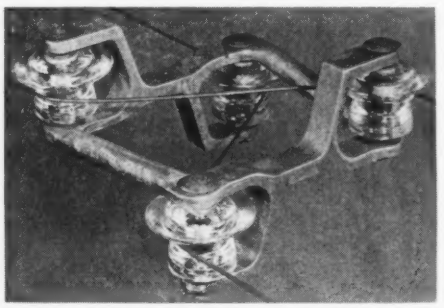
International Creosoting and Construction Co., Galveston, Texas.—Creosoted Southern Yellow Pine Poles. Plants Beaumont and Texarkana, Texas.

T. M. Partridge Lumber Co., Minneapolis, Minn.—Northern White—Western Red Cedar Poles, Plain or butt-treated.

Wood Products Co., American Bank Bldg., Portland, Ore.—Creosoted Douglas Fir, Larch, and Lodgepole Pine Poles.

New Case Bracket Transposes Long Distance Wires

Testing projects in South America, Canada and the United States show the new Case Span Transposition Bracket has solved interference problems by allowing carrier circuit wires to be crossed at any point between poles without cutting wires, it is stated.



The bracket, originated by Rogers Case of Transandean Associates, Inc., is made of magnesium, with either glass or rubber insulators, and weighs less than three pounds. Use of an insulating bushing which allows circuits to continue without interruption even if the insulator should break is a feature of the bracket's construction.

V V

Wins Safety Award

Copperweld Steel Co., Glassport, Pa., recently won second place safety award in the non-ferrous metals division at the 35th National Safety Congress held in Chicago.

FOR SALE

THOUSANDS OF SPARE PARTS MUST BE SOLD IMMEDIATELY from BD-71 and BD-72 Signal CORPS switchboards; Jacks Binding Posts, Capacitors Switches, Drops, Leg Assembly, etc.
WATERMAN PRODUCTS CO.
2445 Emerald St., Philadelphia 25, Pa.

FOR SALE: 35 three-bar and 125 five-bar magneto wall telephones, various makes, all in good condition. 2 position, 85 line, magneto B-R Electric Co. switchboard equipped with Leich parts. Write Citizens Telephone Co., Higginsville, Missouri.

FOR SALE: 600 desk stands, 600 C.B. bell boxes, 100 C.B. wall telephones with 33, 50, 16 and 60 cycle harmonic ringers. Late types, good working order. $6.00 ea. F.O.B. Columbia, Pa. Write The Columbia Telephone Co., 22 No. 3rd St., Columbia, Pa.

HEAD AND CHEST SETS, RECEIVER AND TRANSMITTER
$1.50
Used by Signal Corps
plug-in type (HS30)
WATERMAN PRODUCTS CO.
2445 Emerald St., Philadelphia 25, Pa.

ATLANTIC
Creosoting Co., Inc., 17 Battery Pl., N. Y. C.
Creosoted Pine Poles
Crossarms . . Conduit
PLANTS AND OFFICES
New Orleans, La. Jackson, Tenn. Boston, Mass.
Winnfield, La. Louisville, Miss. New York, N. Y.
Norfolk, Va. Savannah, Ga. Philadelphia, Pa.
Annapolis, Md. Chicago, Ill.

UNDERGROUND CONTRACTOR
TILE CONDUIT WORK — MANHOLES
BURIED CABLE TRENCH
SEYMOUR CORLEY
220 N. FRINK PEORIA 5, ILL.

DOUGLAS FIR CROSSARMS
CEDAR POLES
R. G. HALEY & CO.
SPITZER BLDG.
TOLEDO, OHIO

ACCOUNTING
HERDRICH BOGGS and CO.
Certified Public Accountants
803 Electric Building
INDIANAPOLIS 4, IND.

CYRUS G. HILL
ENGINEERS
ALLEN K. HAMILTON
PLANT — TRAFFIC — COMMERCIAL
VALUATIONS AND ORIGINAL COST
231 S. LA SALLE ST., CHICAGO 4

Cedar Poles
MAC GILLIS & GIBBS COMPANY
Wells Bldg., Milwaukee 2, Wis.
★ ★
Northern White and Western Red
Cedar Poles—Plain or Butt-Treated

SLOAN, COOK & LOWE
CONSULTING ENGINEERS
120 SOUTH LA SALLE STREET
CHICAGO
Appraisals—Original Cost Studies
Depreciation, Financial, and Other
Investigations

MANFRED K. TOEPPEN
Engineer
Consultation • Investigation
Reports
261 Broadway, New York 7, N. Y.

TRANSMITTERS
Completely Rebuilt $0.60
Process includes — new granular carbon, black baked enamel fronts. Unit perfectly adjusted. We specialize in rebuilding of transmitters, generators, receivers and ringers. Workmanship guaranteed.
CLARK-JARVIS
TELEPHONE EQUIPMENT CO.
Clark-Jarvis Bldg., 736/-69 N. Clark St.
Chicago 26, Illinois